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OREST SERVICE
E BULLETIN NC- 19

# TIMBER RESOURCE OF MISSOURI'S
# eastern ozarks

**burton l. essex and john s. spencer, jr.**

NORTH CENTRAL FOREST EXPERIMENT STATION
FOREST SERVICE• U.S. DEPARTMENT OF AGRICULTURE

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1974. Timber resource of Missouri's Eastern Ozarks, 1972. North Cent. For. Exp. Stn., St. Paul, Minn. 62 p. (USDA For. Serv. Resour. Bull. NC-19)

The third timber inventory of Missouri's Eastern Ozarks Forest Survey Unit shows that there was a substantial gain in the volume of growing stock and a smaller but sizable gain in the volume of sawtimber between 1959 and 1972; however, the area of commercial forest land declined slightly. This report gives statistical highlights and tables presenting detailed information concerning forest area as well as timber volume, growth, mortality, ownership, and use.

OXFORD: 524.1:905.2(778). KEY WORDS: timber volume, growth, utilization, forest areas.

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## FOREWORD

Forest Survey is a continuing endeavor as mandated by the McSweeney-McNary Forest Research Act of 1928. Its objective is to inventory periodically the Nation's forest lands to determine their extent, condition, and volumes of timber, growth, and depletions. This kind of up-to-date information is essential to frame intelligent forest policies and programs. USDA Forest Service regional experiment stations are charged with the responsibility for conducting these inventories and publishing summary reports for individual States. The North Central Forest Experiment Station is responsible for Forest Survey work done in Michigan, Wisconsin, Minnesota, North Dakota, eastern South Dakota, Nebraska, Iowa, Illinois, Indiana, Missouri, and Kansas.

Fieldwork for the 1972 Missouri Forest Survey was started in January 1970 and was completed in May 1973. Reports on the two previous surveys of Missouri's timber resource are dated 1947 and 1959. These earlier reports provide a basis for comparison with the information in this report for those interested in trends that have developed over the past quarter century.

Similar Resource Bulletins reporting statistical highlights and detailed tables on the timber resource of the other Survey Units in Missouri (see cover) are in preparation. These will provide the basis for a comprehensive analysis of the timber resource of the entire State which will be published as a separate report.

A higher degree of accuracy of survey information was obtained during the 1972 survey than otherwise would have been feasible because of intensified field sampling made possible by extra funding provided the North Central Station by the State Legislature through the Missouri Department of Conservation. The Department also conducted a canvass of primary wood-using plants in the State, which was used to help in estimating the quantity of timber products harvested in Missouri.

Personnel from the National Forests in Missouri installed sample plots on national forest lands, which were used to inventory those lands. The USDA Agricultural Stabilization and Conservation Service and the State Historical Society of Missouri furnished aerial photos used in the survey.

## N O T E

• References to information concerning growth, mortality, and removals are dated 1971, but information concerning forest area and timber inventory incorporate changes that occurred during calendar year 1971; therefore, they represent conditions as of January 1, 1972 and are dated 1972.

• Many of the terms used in this Resource Bulletin have specialized meanings, which are defined in "Glossary of Terms used in Resource Bulletins Reporting Missouri's 1972 Timber Resource." Copies of this Glossary can be obtained from the North Central Forest Experiment Station.

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# TIMBER RESOURCE OF MISSOURI'S EASTERN OZARKS, 1972

Burton L. Essex and John S. Spencer, Jr.

## HIGHLIGHTS 1/

### Forest Area

Forest land occupies 4.2 million acres (69 percent of the Unit's land area) as compared to 4.4 million acres (71 percent) in 1959.

Of this, 4.1 million acres were classified as commercial forest as compared to 4.3 million acres in 1959.

Shannon County contains the Unit's largest area of commercial forest (477 thousand acres) followed by Reynolds County (423 thousand acres) and Washington County (355 thousand acres).

Farmers, private individuals, and corporations not directly engaged in timber processing own two-thirds of the commercial forest.

The black and scarlet oak type dominated the commercial forest in 1972--1.9 million acres as compared to 2.2 million acres in 1959 in the type.

Poletimber stands constitute the largest stand-size class--48 percent of the commercial forest area.

### Timber Volume

Volume of growing stock on commercial forest land was 2.2 billion cubic feet in 1972 as compared to 1.7 billion cubic feet in 1959.

Sawtimber volume increased from 3.5 billion board feet in 1959 to 5.3 billion board feet in 1972.

The oaks alone account for three-fourths of the 1972 growing-stock volume.

Average volume per acre of growing stock is 417 cubic feet (5.3 cords).

Farmers, private individuals, and corporations not directly engaged in timber processing own 61 percent of the growing-stock volume.

Volume in rough and rotten trees that are alive is 766 million cubic feet, most in rough trees.

### Stand Conditions

Net annual growth on growing-stock trees was 71 million cubic feet (903 thousand cords) in 1971.

Net annual growth rate of growing stock was 3.2 percent of inventory volume.

Mortality of growing-stock trees amounted to 3 million cubic feet (41 thousand cords) in 1971.

Seventy-four percent of the commercial forest area is capable of growing trees 50 feet and taller at age 50, but only 17 percent is capable of growing

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*1/ Published 1959 statistics have been adjusted to be comparable with 1972 data because of changed definitions and procedures used during the two surveys.*

trees 70 feet and taller at the same age.

Fifty-seven percent of the commercial forest includes stands younger than 50 years old.

Forty-six percent of the commercial forest is medium stocked or better with growing-stock trees. Only 3.4 percent is classified as nonstocked with these trees. (See glossary for nonstocked areas, page 2.)

## Timber Use

Timber removals from growing stock in 1971 amounted to 41 million cubic feet (518 thousand cords)--about 60 percent of the volume of net annual growth. (See glossary for timber removals, page 5).

Total timber products output in 1969 was 55 million cubic feet, 34 million cubic feet of which was in saw logs.

Volume of wood residues from primary plants in 1969 totaled 13 million cubic feet, of which 9 million cubic feet are not utilized.2/

## Allowable Cut

For the years 1972 through 1981, annual allowable cut from growing stock on commercial forests is estimated to average 57 million cubic feet (717 thousand cords)--47 million cubic feet from harvest cuttings and 10 million cubic feet from thinnings.

For the same years, annual allowable cut from rough and rotten trees is estimated to average 22 million cubic feet (272 thousand cords).

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*2/ Primary plants are those using logs and bolts or chips, shavings, etc., from logs and bolts.*

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Table 1.--*Area of land by land class, Eastern Ozarks, Missouri, 1959 and 1972*

(Thousand acres)

| Land class | 1959[1/] | 1972 |
|---|---|---|
| Commercial forest land: | | |
| Shortleaf pine type | 232.40 | 98.20 |
| Eastern redcedar type | 24.39 | 12.40 |
| Eastern redcedar-hardwood type | 18.46 | 20.40 |
| Shortleaf pine-oak type | 436.79 | 211.70 |
| Post-blackjack oak type | 540.81 | 709.40 |
| Black-scarlet oak type | 2,216.79 | 1,896.00 |
| White oak type | 389.48 | 836.60 |
| Oak-gum-cypress type | 65.22 | 13.70 |
| Elm-ash-cottonwood type | 106.06 | 78.50 |
| Maple-beech type | 36.16 | 67.60 |
| Nonstocked | 192.80 | 139.50 |
| Subtotal | 4,259.36 | 4,084.00 |
| Noncommercial forest land: | | |
| Unproductive | 71.95 | 63.30 |
| Productive-reserved | 26.50 | 97.30 |
| Subtotal | 98.45 | 160.60 |
| Nonforest land | 1,791.99 | 1,918.30 |
| Total | 6,149.80 | 6,162.90 |

1/ Figures have been adjusted from those published previously for 1959 to conform to 1972 land classes because of changes in survey definitions and procedures.

Table 2.--*Area of land and forest land, by county, Eastern Ozarks, Missouri, 1972*

| County | Land area | Forest land | | | Commercial forest as a percent of land area |
|---|---|---|---|---|---|
| | | All forest | Noncommercial | Commercial | |
| | Thousand acres | | | | Percent |
| Bollinger | 397.5 | 203.5 | 1.8 | 201.7 | 51 |
| Butler | 457.8 | 173.9 | 5.8 | 168.1 | 37 |
| Carter | 323.9 | 270.6 | 18.8 | 251.8 | 78 |
| Crawford | 486.4 | 324.5 | 3.6 | 320.9 | 66 |
| Dent | 483.5 | 316.4 | 8.2 | 308.2 | 64 |
| Iron | 354.5 | 289.2 | 4.1 | 285.1 | 80 |
| Madison | 317.4 | 230.5 | 2.8 | 227.7 | 72 |
| Oregon | 501.8 | 323.0 | 6.6 | 316.4 | 63 |
| Reynolds | 523.1 | 436.5 | 13.5 | 423.0 | 80 |
| Ripley | 409.0 | 274.2 | 4.5 | 269.7 | 66 |
| St. Francois | 292.3 | 148.4 | 7.3 | 141.1 | 48 |
| Shannon | 639.4 | 518.4 | 41.4 | 477.0 | 75 |
| Washington | 486.4 | 359.0 | 4.0 | 355.0 | 73 |
| Wayne | 490.0 | 376.5 | 38.2 | 338.3 | 69 |
| All counties | 6,163.0 | 4,244.6 | 160.6 | 4,084.0 | 66 |

Table 3.--*Area of commercial forest land for Missouri's Eastern Ozarks Survey Unit and for individual counties within Unit, by forest type and stand-size class, 1972*

(Thousand acres)

| Forest type | All stands | Sawtimber stands | Poletimber stands | Sapling and seedling stands | Nonstocked areas |
|---|---|---|---|---|---|
| **ALL COUNTIES** | | | | | |
| Shortleaf pine | 98.2 | 39.5 | 39.2 | 19.5 | -- |
| Eastern redcedar | 12.4 | 3.0 | 1.7 | 7.7 | -- |
| Eastern redcedar-hardwood | 20.4 | -- | 1.7 | 18.7 | -- |
| Shortleaf pine-oak | 211.7 | 56.7 | 122.6 | 32.4 | -- |
| Post-blackjack oak | 709.4 | 142.2 | 294.4 | 272.8 | -- |
| Black-scarlet oak | 1,896.0 | 603.7 | 962.8 | 329.5 | -- |
| White oak | 836.6 | 242.7 | 484.7 | 109.2 | -- |
| Oak-gum-cypress | 13.7 | 7.1 | 3.6 | 3.0 | -- |
| Elm-ash-cottonwood | 78.5 | 37.1 | 30.5 | 10.9 | -- |
| Maple-beech | 67.6 | 13.7 | 30.1 | 23.8 | -- |
| Nonstocked 1/ | 139.5 | -- | -- | -- | 139.5 |
| All forest types | 4,084.0 | 1,145.7 | 1,971.3 | 827.5 | 139.5 |
| **BOLLINGER COUNTY** | | | | | |
| Shortleaf pine | 2.0 | .5 | .9 | .6 | -- |
| Eastern redcedar | .7 | .2 | -- | .5 | -- |
| Eastern redcedar-hardwood | .7 | -- | -- | .7 | -- |
| Shortleaf pine-oak | 7.1 | 2.2 | 3.7 | 1.2 | -- |
| Post-blackjack oak | 34.5 | 7.8 | 14.8 | 11.9 | -- |
| Black-scarlet oak | 92.8 | 34.7 | 44.0 | 14.1 | -- |
| White oak | 43.9 | 16.1 | 23.5 | 4.3 | -- |
| Oak-gum-cypress | 1.3 | 1.1 | .1 | .1 | -- |
| Elm-ash-cottonwood | 5.4 | 3.3 | 1.6 | .5 | -- |
| Maple-beech | 4.4 | 1.8 | 1.4 | 1.2 | -- |
| Nonstocked 1/ | 8.9 | -- | -- | -- | 8.9 |
| All forest types | 201.7 | 67.7 | 90.0 | 35.1 | 8.9 |
| **BUTLER COUNTY** | | | | | |
| Shortleaf pine | 9.2 | 4.5 | 3.0 | 1.7 | -- |
| Eastern redcedar | .8 | .1 | -- | .7 | -- |
| Eastern redcedar-hardwood | 1.2 | -- | -- | 1.2 | -- |
| Shortleaf pine-oak | 8.8 | 2.3 | 5.5 | 1.0 | -- |
| Post-blackjack oak | 26.0 | 4.8 | 12.2 | 9.0 | -- |
| Black-scarlet oak | 65.0 | 19.1 | 34.9 | 11.0 | -- |
| White oak | 28.6 | 9.3 | 15.8 | 3.5 | -- |
| Oak-gum-cypress | 4.0 | 3.8 | -- | .2 | -- |
| Elm-ash-cottonwood | 9.8 | 6.1 | 2.9 | .8 | -- |
| Maple-beech | 4.7 | 1.9 | 1.0 | 1.8 | -- |
| Nonstocked 1/ | 10.0 | -- | -- | -- | 10.0 |
| All forest types | 168.1 | 51.9 | 75.3 | 30.9 | 10.0 |
| **CARTER COUNTY** | | | | | |
| Shortleaf pine | 9.5 | 3.6 | 3.4 | 2.5 | -- |
| Eastern redcedar | .7 | .2 | .1 | .4 | -- |
| Eastern redcedar-hardwood | 1.0 | -- | .1 | .9 | -- |
| Shortleaf pine-oak | 15.1 | 3.8 | 9.1 | 2.2 | -- |
| Post-blackjack oak | 43.8 | 8.6 | 17.1 | 18.1 | -- |
| Black-scarlet oak | 117.1 | 36.6 | 58.2 | 22.3 | -- |
| White oak | 51.0 | 14.1 | 28.9 | 8.0 | -- |
| Oak-gum-cypress | .3 | -- | .3 | -- | -- |
| Elm-ash-cottonwood | 2.9 | .9 | 1.2 | .8 | -- |
| Maple-beech | 3.1 | -- | 2.0 | 1.1 | -- |
| Nonstocked | 7.3 | -- | -- | -- | 7.3 |
| All forest types | 251.8 | 67.8 | 120.4 | 56.3 | 7.3 |

1/ See glossary for stand-size classes (page 3 )

(Table 3 cont. on next page)

(Table 3 cont.)

| Forest type | All stands | Sawtimber stands | Poletimber stands | Sapling and seedling stands | Nonstocked areas |
|---|---|---|---|---|---|
| **CRAWFORD COUNTY** | | | | | |
| Shortleaf pine | 1.9 | .4 | .9 | .6 | -- |
| Eastern redcedar | .9 | .3 | -- | .6 | -- |
| Eastern redcedar-hardwood | .8 | -- | -- | .8 | -- |
| Shortleaf pine-oak | 11.7 | 3.2 | 6.3 | 2.2 | -- |
| Post-blackjack oak | 56.5 | 11.8 | 24.4 | 20.3 | -- |
| Black-scarlet oak | 154.3 | 51.2 | 78.1 | 25.0 | -- |
| White oak | 69.3 | 21.0 | 40.2 | 8.1 | -- |
| Oak-gum-cypress | .8 | -- | .3 | .5 | -- |
| Elm-ash-cottonwood | 8.5 | 4.4 | 3.1 | 1.0 | -- |
| Maple-beech | 5.0 | 1.3 | 2.0 | 1.7 | -- |
| Nonstocked 1/ | 11.2 | -- | -- | -- | 11.2 |
| All forest types | 320.9 | 93.6 | 155.3 | 60.8 | 11.2 |
| **DENT COUNTY** | | | | | |
| Shortleaf pine | 4.2 | 2.0 | 1.5 | .7 | -- |
| Eastern redcedar | .9 | .2 | -- | .7 | -- |
| Eastern redcedar-hardwood | 1.2 | -- | -- | 1.2 | -- |
| Shortleaf pine-oak | 13.2 | 3.1 | 7.3 | 2.8 | -- |
| Post-blackjack oak | 57.6 | 10.6 | 24.0 | 23.0 | -- |
| Black-scarlet oak | 148.7 | 43.8 | 76.8 | 28.1 | -- |
| White oak | 63.4 | 15.9 | 38.7 | 8.8 | -- |
| Oak-gum-cypress | .5 | -- | .4 | .1 | -- |
| Elm-ash-cottonwood | 3.4 | 1.1 | 1.7 | .6 | -- |
| Maple-beech | 4.3 | .3 | 2.4 | 1.6 | -- |
| Nonstocked 1/ | 10.8 | -- | -- | -- | 10.8 |
| All forest types | 308.2 | 77.0 | 152.8 | 67.6 | 10.8 |
| **IRON COUNTY** | | | | | |
| Shortleaf pine | 3.9 | .6 | 2.1 | 1.2 | -- |
| Eastern redcedar | .6 | .1 | .2 | .3 | -- |
| Eastern redcedar-hardwood | 1.1 | -- | .2 | .9 | -- |
| Shortleaf pine-oak | 15.0 | 3.5 | 9.5 | 2.0 | -- |
| Post-blackjack oak | 49.5 | 9.8 | 21.8 | 17.9 | -- |
| Black-scarlet oak | 139.3 | 43.3 | 74.3 | 21.7 | -- |
| White oak | 60.6 | 16.2 | 37.4 | 7.0 | -- |
| Oak-gum-cypress | .4 | -- | .3 | .1 | -- |
| Elm-ash-cottonwood | 3.8 | 1.4 | 2.0 | .4 | -- |
| Maple-beech | 3.7 | .7 | 1.3 | 1.7 | -- |
| Nonstocked 1/ | 7.2 | -- | -- | -- | 7.2 |
| All forest types | 285.1 | 75.6 | 149.1 | 53.2 | 7.2 |
| **MADISON COUNTY** | | | | | |
| Shortleaf pine | 9.6 | 2.8 | 4.1 | 2.7 | -- |
| Eastern redcedar | .6 | .1 | .2 | .3 | -- |
| Eastern redcedar-hardwood | 1.5 | -- | .2 | 1.3 | -- |
| Shortleaf pine-oak | 17.4 | 4.7 | 11.3 | 1.4 | -- |
| Post-blackjack oak | 34.9 | 7.9 | 14.9 | 12.1 | -- |
| Black-scarlet oak | 102.8 | 32.5 | 54.6 | 15.7 | -- |
| White oak | 44.3 | 11.9 | 26.6 | 5.8 | -- |
| Oak-gum-cypress | .6 | .2 | .1 | .3 | -- |
| Elm-ash-cottonwood | 5.0 | 2.4 | 1.9 | .7 | -- |
| Maple-beech | 4.5 | 2.0 | 1.0 | 1.5 | -- |
| Nonstocked 1/ | 6.5 | -- | -- | -- | 6.5 |
| All forest types | 227.7 | 64.5 | 114.9 | 41.8 | 6.5 |

1/ See glossary for stand-size classes (page 3 )

(Table 3 cont. on next page)

(Table 3 cont.)

| Forest type | All stands | Sawtimber stands | Poletimber stands | Sapling and seedling stands | Nonstocked areas |
|---|---|---|---|---|---|
| **OREGON COUNTY** | | | | | |
| Shortleaf pine | 7.0 | 3.5 | 2.5 | 1.0 | -- |
| Eastern redcedar | 1.3 | .5 | -- | .8 | -- |
| Eastern redcedar-hardwood | 1.9 | -- | -- | 1.9 | -- |
| Shortleaf pine-oak | 19.0 | 5.5 | 9.9 | 3.6 | -- |
| Post-blackjack oak | 59.2 | 11.6 | 21.2 | 26.4 | -- |
| Black-scarlet oak | 142.9 | 44.3 | 66.3 | 32.3 | -- |
| White oak | 61.8 | 18.0 | 32.9 | 10.9 | -- |
| Oak-gum-cypress | .4 | -- | .3 | .1 | -- |
| Elm-ash-cottonwood | 4.5 | 2.2 | 1.4 | .9 | -- |
| Maple-beech | 4.9 | .3 | 3.2 | 1.4 | -- |
| Nonstocked 1/ | 13.5 | -- | -- | -- | 13.5 |
| All forest types | 316.4 | 85.9 | 137.7 | 79.3 | 13.5 |
| **REYNOLDS COUNTY** | | | | | |
| Shortleaf pine | 7.2 | 2.2 | 2.9 | 2.1 | -- |
| Eastern redcedar | .9 | .3 | .2 | .4 | -- |
| Eastern redcedar-hardwood | 1.3 | -- | .2 | 1.1 | -- |
| Shortleaf pine-oak | 18.8 | 5.2 | 11.1 | 2.5 | -- |
| Post-blackjack oak | 71.8 | 15.7 | 31.6 | 24.5 | -- |
| Black-scarlet oak | 205.2 | 68.1 | 106.6 | 30.5 | -- |
| White oak | 92.4 | 27.3 | 55.1 | 10.0 | -- |
| Oak-gum-cypress | .7 | .1 | .3 | .3 | -- |
| Elm-ash-cottonwood | 6.8 | 2.9 | 3.0 | .9 | -- |
| Maple-beech | 6.3 | 1.5 | 2.6 | 2.2 | -- |
| Nonstocked 1/ | 11.6 | -- | -- | -- | 11.6 |
| All forest types | 423.0 | 123.3 | 213.6 | 74.5 | 11.6 |
| **RIPLEY COUNTY** | | | | | |
| Shortleaf pine | 10.3 | 5.5 | 4.4 | .4 | -- |
| Eastern redcedar | .8 | .1 | -- | .7 | -- |
| Eastern redcedar-hardwood | 1.2 | -- | -- | 1.2 | -- |
| Shortleaf pine-oak | 17.1 | 3.9 | 10.6 | 2.6 | -- |
| Post-blackjack oak | 46.8 | 8.6 | 18.4 | 19.8 | -- |
| Black-scarlet oak | 119.2 | 36.1 | 60.6 | 22.5 | -- |
| White oak | 51.6 | 14.0 | 29.8 | 7.8 | -- |
| Oak-gum-cypress | 1.2 | .6 | .2 | .4 | -- |
| Elm-ash-cottonwood | 6.9 | 3.4 | 2.6 | .9 | -- |
| Maple-beech | 5.2 | 1.2 | 2.4 | 1.6 | -- |
| Nonstocked 1/ | 9.4 | -- | -- | -- | 9.4 |
| All forest types | 269.7 | 73.4 | 129.0 | 57.9 | 9.4 |
| **ST. FRANCOIS COUNTY** | | | | | |
| Shortleaf pine | 1.2 | .1 | .5 | .6 | -- |
| Eastern redcedar | .9 | .1 | .2 | .6 | -- |
| Eastern redcedar-hardwood | 2.2 | -- | .2 | 2.0 | -- |
| Shortleaf pine-oak | 6.1 | .9 | 3.4 | 1.8 | -- |
| Post-blackjack oak | 26.9 | 4.7 | 10.3 | 11.9 | -- |
| Black-scarlet oak | 62.0 | 19.4 | 30.2 | 12.4 | -- |
| White oak | 26.2 | 7.3 | 15.3 | 3.6 | -- |
| Oak-gum-cypress | .4 | -- | .1 | .3 | -- |
| Elm-ash-cottonwood | 4.2 | 1.8 | 1.4 | 1.0 | -- |
| Maple-beech | 3.5 | .3 | 1.8 | 1.4 | -- |
| Nonstocked 1/ | 7.5 | -- | -- | -- | 7.5 |
| All forest types | 141.1 | 34.6 | 63.4 | 35.6 | 7.5 |

1/See glossary for stand-size classes (page 3 )

(Table 3 cont. on next page)

(Table 3 cont.)

| Forest type | All stands | Sawtimber stands | Poletimber stands | Sapling and seedling stands | Nonstocked areas |
|---|---|---|---|---|---|
| **SHANNON COUNTY** | | | | | |
| Shortleaf pine | 8.3 | 3.6 | 3.4 | 1.3 | -- |
| Eastern redcedar | 1.1 | .3 | .1 | .7 | -- |
| Eastern redcedar-hardwood | 2.3 | -- | .1 | 2.2 | -- |
| Shortleaf pine-oak | 25.2 | 6.0 | 14.4 | 4.8 | -- |
| Post-blackjack oak | 88.3 | 15.4 | 35.1 | 37.8 | -- |
| Black-scarlet oak | 227.3 | 67.7 | 112.4 | 47.2 | -- |
| White oak | 97.8 | 27.0 | 55.6 | 15.2 | -- |
| Oak-gum-cypress | 1.1 | -- | 1.0 | .1 | -- |
| Elm-ash-cottonwood | 5.3 | 1.8 | 2.9 | .6 | -- |
| Maple-beech | 5.8 | .2 | 3.3 | 2.3 | -- |
| Nonstocked 1/ | 14.5 | -- | -- | -- | 14.5 |
| All forest types | 477.0 | 122.0 | 228.3 | 112.2 | 14.5 |
| **WASHINGTON COUNTY** | | | | | |
| Shortleaf pine | 10.3 | 5.5 | 4.4 | .4 | -- |
| Eastern redcedar | 1.1 | .3 | .3 | .5 | -- |
| Eastern redcedar-hardwood | 2.1 | -- | .3 | 1.8 | -- |
| Shortleaf pine-oak | 16.8 | 5.4 | 9.2 | 2.2 | -- |
| Post-blackjack oak | 59.1 | 13.5 | 25.1 | 20.5 | -- |
| Black-scarlet oak | 165.7 | 57.5 | 85.0 | 23.2 | -- |
| White oak | 75.6 | 23.6 | 44.1 | 7.9 | -- |
| Oak-gum-cypress | .4 | -- | .1 | .3 | -- |
| Elm-ash-cottonwood | 5.8 | 2.6 | 2.6 | .6 | -- |
| Maple-beech | 6.9 | 1.7 | 3.1 | 2.1 | -- |
| Nonstocked 1/ | 11.2 | -- | -- | -- | 11.2 |
| All forest types | 355.0 | 110.1 | 174.2 | 59.5 | 11.2 |
| **WAYNE COUNTY** | | | | | |
| Shortleaf pine | 13.6 | 4.7 | 5.2 | 3.7 | -- |
| Eastern redcedar | 1.1 | .2 | .4 | .5 | -- |
| Eastern redcedar-hardwood | 1.9 | -- | .4 | 1.5 | -- |
| Shortleaf pine-oak | 20.4 | 7.0 | 11.3 | 2.1 | -- |
| Post-blackjack oak | 54.5 | 11.4 | 23.5 | 19.6 | -- |
| Black-scarlet oak | 153.7 | 49.4 | 80.8 | 23.5 | -- |
| White oak | 70.1 | 21.0 | 40.8 | 8.3 | -- |
| Oak-gum-cypress | 1.6 | 1.3 | .1 | .2 | -- |
| Elm-ash-cottonwood | 6.2 | 2.8 | 2.2 | 1.2 | -- |
| Maple-beech | 5.3 | .5 | 2.6 | 2.2 | -- |
| Nonstocked 1/ | 9.9 | -- | -- | -- | 9.9 |
| All forest types | 338.3 | 98.3 | 167.3 | 62.8 | 9.9 |

1/ See glossary for stand-size classes (page 3 )

Table 4.—*Area of commercial forest land, by county and ownership class, Eastern Ozarks, Missouri, 1972*

(Thousand acres)

| County | All ownerships | National Forest | Other federal | State, county and municipal | Forest industry | Farmer and miscellaneous private |
|---|---|---|---|---|---|---|
| Bollinger | 201.7 | 1.4 | -- | 0.3 | 10.2 | 189.8 |
| Butler | 168.1 | 47.5 | -- | 7.5 | 5.6 | 107.5 |
| Carter | 251.8 | 86.6 | -- | 23.0 | 17.9 | 124.3 |
| Crawford | 320.9 | 44.4 | -- | 7.6 | -- | 268.9 |
| Dent | 308.2 | 64.4 | -- | 13.9 | 13.7 | 216.2 |
| Iron | 285.1 | 87.0 | -- | 3.1 | 6.1 | 188.9 |
| Madison | 227.7 | 34.7 | -- | -- | .1 | 192.9 |
| Oregon | 316.4 | 90.5 | -- | -- | 12.0 | 213.9 |
| Reynolds | 423.0 | 88.6 | -- | 33.9 | 70.7 | 229.8 |
| Ripley | 269.7 | 88.2 | -- | 2.2 | 5.5 | 173.8 |
| St. Francois | 141.1 | .7 | -- | -- | -- | 140.4 |
| Shannon | 477.0 | 80.9 | -- | 54.1 | 143.8 | 198.2 |
| Washington | 355.0 | 72.9 | -- | 3.3 | 12.0 | 266.8 |
| Wayne | 338.3 | 82.2 | 5.8 | 13.9 | 9.7 | 226.7 |
| All counties | 4,084.0 | 870.0 | 5.8 | 162.8 | 307.3 | 2,738.1 |

Table 5.—*Area of commercial forest land, by stand-volume and ownership class, Eastern Ozarks, Missouri, 1972*

(Thousand acres)

| Stand volume per acre 1/ (board feet) | All ownerships | National Forest | Other federal | State, county and municipal | Forest industry | Farmer and miscellaneous private |
|---|---|---|---|---|---|---|
| Less than 1,500 | 2,412.1 | 275.6 | 3.1 | 87.7 | 195.4 | 1,850.3 |
| 1,500 to 5,000 | 1,505.4 | 459.3 | 2.7 | 67.2 | 111.9 | 864.3 |
| More than 5,000 | 166.5 | 135.1 | -- | 7.9 | -- | 23.5 |
| All classes | 4,084.0 | 870.0 | 5.8 | 162.8 | 307.3 | 2,738.1 |

1/ International 1/4-inch rule.

Table 6.--*Area of commercial forest land, by area-condition and ownership class, Eastern Ozarks, Missouri, 1972*

(Thousand acres)

| Area-condition class 1/ | All ownerships | National Forest | Other federal | State, county and municipal | Forest industry | Farmer and miscellaneous private |
|---|---|---|---|---|---|---|
| 50 | 163.9 | 148.4 | -- | 2.8 | -- | 12.7 |
| 60 | 1,722.0 | 581.2 | 4.7 | 78.9 | 152.5 | 904.7 |
| 70 | 2,198.1 | 140.4 | 1.1 | 81.1 | 154.8 | 1,820.7 |
| All classes | 4,084.0 | 870.0 | 5.8 | 162.8 | 307.3 | 2,738.1 |

1/ See glossary for area-condition classes (page 2 ).

Table 7.--*Area of commercial forest land, by site and ownership class, Eastern Ozarks, Missouri, 1972*

(Thousand acres)

| Site class (cubic feet of growth per acre per year) | All ownerships | National Forest | Other federal | State, county and municipal | Forest industry | Farmer and miscellaneous private |
|---|---|---|---|---|---|---|
| 85-119 | 177.0 | 35.2 | 1.1 | 5.9 | -- | 134.8 |
| 50-84 | 1,098.8 | 296.5 | 2.4 | 67.2 | 96.4 | 636.3 |
| Less than 50 | 2,808.2 | 538.3 | 2.3 | 89.7 | 210.9 | 1,967.0 |
| All classes | 4,084.0 | 870.0 | 5.8 | 162.8 | 307.3 | 2,738.1 |

Table 8.--*Area of commercial forest land, by forest type and ownership class, Eastern Ozarks, Missouri, 1972*

(Thousand acres)

| Forest Type | All ownerships | National Forest | Other federal | State, county and municipal | Forest industry | Farmer and miscellaneous private |
|---|---|---|---|---|---|---|
| Shortleaf pine | 98.2 | 87.4 | .5 | -- | -- | 10.3 |
| Eastern redcedar | 12.4 | .3 | -- | 1.4 | -- | 10.7 |
| Eastern redcedar-hardwood | 20.4 | 1.1 | -- | 2.2 | -- | 17.1 |
| Shortleaf pine-oak | 211.7 | 133.3 | -- | 11.0 | 54.0 | 13.4 |
| Post-blackjack oak | 709.4 | 6.5 | -- | 18.8 | 70.3 | 613.8 |
| Black-scarlet oak | 1,896.0 | 424.6 | 3.6 | 89.9 | 156.0 | 1,221.9 |
| White oak | 836.6 | 208.6 | 1.2 | 34.0 | 14.4 | 578.4 |
| Oak-gum-cypress | 13.7 | -- | -- | -- | -- | 13.7 |
| Elm-ash-cottonwood | 78.5 | 3.6 | .5 | -- | 12.6 | 61.8 |
| Maple-beech | 67.6 | -- | -- | 2.5 | -- | 65.1 |
| Nonstocked 1/ | 139.5 | 4.6 | -- | 3.0 | -- | 131.9 |
| All forest types | 4,084.0 | 870.0 | 5.8 | 162.8 | 307.3 | 2,738.1 |

1/ See glossary for stand-size classes (page 3 ).

Table 9.--*Area of commercial forest land, by forest type and stand-age class, Eastern Ozarks, Missouri, 1972*

(Thousand acres)

| Forest type | All ages | Stand-age class (years) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0-9 | 10-19 | 20-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70-79 | 80-89 | 90-99 | 100-119 | 120+ |
| Shortleaf pine | 98.2 | 11.3 | 5.0 | 3.7 | 25.1 | 19.7 | 28.7 | 4.7 | -- | -- | -- | -- | -- |
| Eastern redcedar | 12.4 | 3.8 | 3.9 | -- | -- | -- | -- | -- | 4.7 | -- | -- | -- | -- |
| Eastern redcedar-hardwood | 20.4 | 5.4 | 5.1 | 8.2 | -- | 1.7 | -- | -- | -- | -- | -- | -- | -- |
| Shortleaf pine-oak | 211.7 | 4.1 | 28.3 | 7.2 | 36.4 | 68.2 | 39.5 | 13.8 | 10.8 | -- | 3.4 | -- | -- |
| Post-blackjack oak | 709.4 | 72.1 | 162.9 | 53.8 | 54.7 | 86.1 | 89.9 | 70.4 | 34.6 | 30.7 | 7.6 | 35.1 | 11.5 |
| Black-scarlet oak | 1,896.0 | 96.8 | 183.6 | 72.9 | 280.6 | 430.2 | 437.2 | 159.1 | 136.0 | 38.2 | 30.6 | 30.8 | -- |
| White oak | 836.6 | 45.1 | 60.1 | 23.5 | 58.8 | 182.8 | 179.7 | 105.2 | 77.8 | 34.4 | 38.4 | 15.4 | 15.4 |
| Oak-gum-cypress | 13.7 | 3.0 | -- | -- | 3.6 | 7.1 | -- | -- | -- | -- | -- | -- | -- |
| Elm-ash-cottonwood | 78.5 | 7.2 | 3.7 | 19.9 | 13.4 | 15.4 | -- | 6.1 | 6.6 | 6.2 | -- | -- | -- |
| Maple-beech | 67.6 | 22.3 | 4.9 | 10.6 | 6.4 | 6.3 | 8.9 | .6 | 7.6 | -- | -- | -- | -- |
| Nonstocked 1/ | 139.5 | 71.0 | 33.3 | 9.7 | 11.2 | -- | 3.7 | 3.7 | 3.2 | -- | 3.7 | -- | -- |
| All forest types | 4,084.0 | 342.1 | 490.8 | 209.5 | 490.2 | 817.5 | 787.6 | 363.6 | 281.3 | 109.5 | 83.7 | 81.3 | 26.9 |

1/See glossary for stand-size classes (page 3 ).

Table 10.--*Area of commercial forest land, by forest type and site-index class, Eastern Ozarks, Missouri, 1972*

(Thousand acres)

| Forest type | All classes | Site-index class (height in feet at 50 years) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 20-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70-79 | 80-89 | 90+ |
| Shortleaf pine | 98.2 | -- | 3.1 | 6.0 | 59.5 | 21.4 | 8.2 | -- | -- |
| Eastern redcedar | 12.4 | -- | 4.1 | 8.3 | -- | -- | -- | -- | -- |
| Eastern redcedar-hardwood | 20.4 | -- | 10.5 | 4.5 | -- | 5.4 | -- | -- | -- |
| Shortleaf pine-oak | 211.7 | -- | 7.2 | 33.7 | 75.1 | 66.1 | 29.6 | -- | -- |
| Post-blackjack oak | 709.4 | 7.6 | 172.7 | 216.1 | 216.6 | 69.8 | 26.6 | -- | -- |
| Black-scarlet oak | 1,896.0 | -- | 41.8 | 220.7 | 621.0 | 612.3 | 288.4 | 104.2 | 7.6 |
| White oak | 836.6 | 4.1 | 49.8 | 173.2 | 342.1 | 124.3 | 100.8 | 42.3 | -- |
| Oak-gum-cypress | 13.7 | -- | -- | 3.6 | 3.0 | -- | 3.1 | -- | 4.0 |
| Elm-ash-cottonwood | 78.5 | -- | -- | 6.2 | 13.3 | 20.9 | 6.4 | 18.6 | 13.1 |
| Maple-beech | 67.6 | -- | 3.1 | 23.5 | 17.5 | .6 | 16.5 | 3.3 | 3.1 |
| Nonstocked 1/ | 139.5 | 7.5 | 14.8 | 40.6 | 55.7 | 9.9 | 7.1 | -- | 3.9 |
| All forest types | 4,084.0 | 19.2 | 307.1 | 736.4 | 1,403.8 | 930.7 | 486.7 | 168.4 | 31.7 |

1/ See glossary for stand-size classes (page 3 ).

Table 11.--*Area of commercial forest land, by forest type and basal-area class, Eastern Ozarks, Missouri, 1972*

(Thousand acres)

| Forest type | All classes | Basal-area class (square feet per acre) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 0-19 | 20-39 | 40-59 | 60-79 | 80-99 | 100-119 | 120-139 | 140-159 |
| Shortleaf pine | 98.2 | 3.1 | 6.3 | 11.5 | 16.4 | 17.8 | 35.7 | 7.4 | -- |
| Eastern redcedar | 12.4 | 7.7 | 3.0 | -- | 1.7 | -- | -- | -- | -- |
| Eastern redcedar-hardwood | 20.4 | 7.9 | -- | 2.7 | 9.8 | -- | -- | -- | -- |
| Shortleaf pine-oak | 211.7 | -- | 7.6 | 67.4 | 61.1 | 54.0 | 14.3 | 7.3 | -- |
| Post-blackjack oak | 709.4 | 26.6 | 45.8 | 280.7 | 232.2 | 100.7 | 23.4 | -- | -- |
| Black-scarlet oak | 1,896.0 | 22.1 | 117.8 | 478.4 | 690.6 | 433.8 | 145.4 | 7.9 | -- |
| White oak | 836.6 | 11.6 | 52.6 | 223.5 | 298.6 | 211.5 | 38.8 | -- | -- |
| Oak-gum-cypress | 13.7 | 3.6 | -- | 6.1 | -- | -- | -- | -- | 4.0 |
| Elm-ash-cottonwood | 78.5 | 3.6 | -- | 35.9 | 9.7 | 26.0 | 3.3 | -- | -- |
| Maple-beech | 67.6 | 9.5 | 15.6 | 18.0 | 16.4 | 3.6 | 4.5 | -- | -- |
| Nonstocked 1/ | 139.5 | 31.5 | 40.5 | 48.6 | 18.9 | -- | -- | -- | -- |
| All forest types | 4,084.0 | 127.2 | 289.2 | 1,172.8 | 1,355.4 | 847.4 | 265.4 | 22.6 | 4.0 |

1/ See glossary for stand-size classes (page 3 ).

Table 12.--*Area of commercial forest land, by forest type, stand-size, and site class, Eastern Ozarks, Missouri, 1972*

(Thousand acres)

| Forest type and stand-size class | All site classes | 85 to 120 cu. ft. | 50 to 85 cu. ft. | Less than 50 cu. ft. |
|---|---|---|---|---|
| Shortleaf pine | | | | |
| Sawtimber | 39.5 | 9.4 | 22.1 | 8.0 |
| Poletimber | 39.2 | 3.7 | 22.4 | 13.1 |
| Sapling and seedling | 19.5 | -- | 5.0 | 14.5 |
| All stands | 98.2 | 13.1 | 49.5 | 35.6 |
| Eastern redcedar | | | | |
| Sawtimber | 3.0 | -- | -- | 3.0 |
| Poletimber | 1.7 | -- | -- | 1.7 |
| Sapling and seedling | 7.7 | -- | -- | 7.7 |
| All stands | 12.4 | -- | -- | 12.4 |
| Eastern redcedar-hardwood | | | | |
| Sawtimber | -- | -- | -- | -- |
| Poletimber | 1.7 | -- | -- | 1.7 |
| Sapling and seedling | 18.7 | -- | 5.4 | 13.3 |
| All stands | 20.4 | -- | 5.4 | 15.0 |
| Shortleaf pine-oak | | | | |
| Sawtimber | 56.7 | -- | 18.1 | 38.6 |
| Poletimber | 122.6 | -- | 40.0 | 82.6 |
| Sapling and seedling | 32.4 | -- | 12.1 | 20.3 |
| All stands | 211.7 | -- | 70.2 | 141.5 |
| Post-blackjack oak | | | | |
| Sawtimber | 142.2 | -- | 11.5 | 130.7 |
| Poletimber | 294.4 | -- | 27.6 | 266.8 |
| Sapling and seedling | 272.8 | -- | 22.6 | 250.2 |
| All stands | 709.4 | -- | 61.7 | 647.7 |
| Black-scarlet oak | | | | |
| Sawtimber | 603.7 | 42.5 | 237.3 | 323.9 |
| Poletimber | 962.8 | 34.9 | 360.3 | 567.6 |
| Sapling and seedling | 329.5 | 7.6 | 89.9 | 232.0 |
| All stands | 1,896.0 | 85.0 | 687.5 | 1,123.5 |
| White oak | | | | |
| Sawtimber | 242.7 | 15.3 | 50.4 | 177.0 |
| Poletimber | 484.7 | 19.5 | 86.6 | 378.6 |
| Sapling and seedling | 109.2 | 7.3 | 22.7 | 79.2 |
| All stands | 836.6 | 42.1 | 159.7 | 634.8 |
| Oak-gum-cypress | | | | |
| Sawtimber | 7.1 | 4.0 | 3.1 | -- |
| Poletimber | 3.6 | -- | -- | 3.6 |
| Sapling and seedling | 3.0 | -- | 3.0 | -- |
| All stands | 13.7 | 4.0 | 6.1 | 3.6 |
| Elm-ash-cottonwood | | | | |
| Sawtimber | 37.1 | 9.3 | 15.4 | 12.4 |
| Poletimber | 30.5 | 10.2 | 13.4 | 6.9 |
| Sapling and seedling | 10.9 | -- | 3.6 | 7.3 |
| All stands | 78.5 | 19.5 | 32.4 | 26.6 |
| Maple-beech | | | | |
| Sawtimber | 13.7 | 3.0 | 2.5 | 8.2 |
| Poletimber | 30.1 | 3.1 | 10.9 | 16.1 |
| Sapling and seedling | 23.8 | 3.2 | -- | 20.6 |
| All stands | 67.6 | 9.3 | 13.4 | 44.9 |
| Nonstocked 1/ | 139.5 | 4.0 | 12.9 | 122.6 |
| Total all types | 4,084.0 | 177.0 | 1,098.8 | 2,808.2 |

1/See glossary for stand-size classes (page 3).

Table 13.--*Area of commercial forest land, by stocking class based on selected stand components, Eastern Ozarks, Missouri, 1972*

(Thousand acres)

| Stocking percentage | Stocking classified in terms of | | | | | |
|---|---|---|---|---|---|---|
| | All trees | Growing-stock trees | | | Rough and rotten trees | Inhibiting vegetation |
| | | Total | Desirable | Acceptable | | |
| 140+ | 11.0 | -- | -- | -- | -- | -- |
| 130-139 | 79.8 | 3.5 | -- | -- | -- | -- |
| 120-129 | 321.7 | 7.4 | -- | 3.7 | -- | -- |
| 110-119 | 603.4 | 44.1 | -- | 23.1 | -- | -- |
| 100-109 | 891.8 | 99.9 | -- | 48.4 | -- | -- |
| 90-99 | 901.5 | 197.1 | -- | 127.2 | 25.3 | -- |
| 80-89 | 686.1 | 394.5 | -- | 332.8 | 70.1 | -- |
| 70-79 | 347.4 | 457.0 | -- | 460.0 | 161.3 | -- |
| 60-69 | 161.1 | 659.2 | -- | 656.7 | 286.0 | -- |
| 50-59 | 61.6 | 633.9 | -- | 715.3 | 605.0 | -- |
| 40-49 | 3.7 | 604.6 | 11.9 | 646.8 | 833.6 | -- |
| 30-39 | 7.5 | 489.7 | 31.6 | 562.5 | 780.4 | -- |
| 20-29 | 7.4 | 302.8 | 66.1 | 305.6 | 751.5 | -- |
| 10-19 | -- | 158.3 | 201.3 | 169.9 | 441.9 | -- |
| 0-10 | -- | 32.0 | 3,773.1 | 32.0 | 128.9 | 4,084.0 |
| Total | 4,084.0 | 4,084.0 | 4,084.0 | 4,084.0 | 4,084.0 | 4,084.0 |

**Table 14.**--*Area of commercial forest land, by stocking class of growing-stock trees and stand-size class, Eastern Ozarks, Missouri, 1972*

(Thousand acres)

| Stocking percentage | All stands | Sawtimber stands | Poletimber stands | Sapling and seedling stands | Nonstocked areas 1/ |
|---|---|---|---|---|---|
| 134 or more | 3.5 | -- | 3.5 | -- | -- |
| 101 to 133 | 151.4 | 65.8 | 85.6 | -- | -- |
| 61 to 100 | 1,707.8 | 521.0 | 914.5 | 272.3 | -- |
| 18 to 60 | 2,081.8 | 558.9 | 967.7 | 555.2 | -- |
| Less than 17 | 139.5 | -- | -- | -- | 139.5 |
| All classes | 4,084.0 | 1,145.7 | 1,971.3 | 827.5 | 139.5 |

1/ See glossary for stand-size classes (page 3 ).

**Table 15.**--*Area of noncommercial forest land, by ownership class, Eastern Ozarks, Missouri, 1972*

(Thousand acres)

| Ownership class | All areas | Productive reserved areas | Unproductive areas |
|---|---|---|---|
| National Forest | 14.5 | -- | 14.5 |
| Other public | 97.3 | 97.3 | -- |
| Forest industry | 3.6 | -- | 3.6 |
| Farmer and miscellaneous private | 45.2 | -- | 45.2 |
| All ownerships | 160.6 | 97.3 | 63.3 |

**Table 16.**--*Area of noncommercial forest land, by forest type, Eastern Ozarks, Missouri, 1972*

(Thousand acres)

| Forest type | All areas | Productive reserved areas | Unproductive areas |
|---|---|---|---|
| Shortleaf pine | .8 | .8 | -- |
| Eastern redcedar | 10.6 | .6 | 10.0 |
| Shortleaf pine-oak | .6 | .6 | -- |
| Post-blackjack oak | 39.6 | 18.6 | 21.0 |
| Black-scarlet oak | 82.1 | 49.8 | 32.3 |
| White oak | 22.0 | 22.0 | -- |
| Elm-ash-cottonwood | 4.9 | 4.9 | -- |
| All forest types | 160.6 | 97.3 | 63.3 |

**Table 17.**--*Number of all live trees on commercial forest land, by species and diameter class, Eastern Ozarks, Missouri, 1972*

(Thousand trees)

| Species | All Classes | Diameter class (inches at breast height) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-22.9 | 23.0-28.9 | 29.0-38.9 | 39.0+ |
| Softwoods: | | | | | | | | | | | | | | | |
| Shortleaf pine | 121,549 | 52,260 | 28,235 | 17,179 | 12,095 | 6,972 | 3,478 | 892 | 291 | 105 | 42 | -- | -- | -- | -- |
| Eastern redcedar | 22,391 | 15,153 | 4,651 | 1,470 | 732 | 236 | 90 | 12 | 42 | -- | 5 | -- | -- | -- | -- |
| Total softwoods | 143,940 | 67,413 | 32,886 | 18,649 | 12,827 | 7,208 | 3,568 | 904 | 333 | 105 | 47 | -- | -- | -- | -- |
| Hardwoods: | | | | | | | | | | | | | | | |
| Select white oaks | 453,594 | 267,635 | 84,517 | 43,464 | 24,920 | 14,956 | 8,454 | 5,205 | 2,348 | 1,027 | 490 | 223 | 311 | 44 | -- |
| Other white oaks | 290,130 | 170,690 | 61,416 | 24,525 | 13,680 | 8,795 | 5,541 | 2,972 | 1,310 | 610 | 325 | 166 | 89 | 11 | -- |
| Select red oaks | 32,327 | 16,897 | 5,923 | 3,009 | 2,236 | 1,595 | 1,071 | 617 | 478 | 226 | 135 | 55 | 75 | 10 | -- |
| Red oaks | 595,831 | 319,763 | 121,216 | 55,608 | 37,755 | 28,555 | 17,455 | 8,329 | 3,926 | 1,605 | 775 | 397 | 388 | 58 | 1 |
| Other red oaks | 88,035 | 58,753 | 12,431 | 5,985 | 4,577 | 3,066 | 1,554 | 882 | 462 | 220 | 56 | 29 | 18 | 2 | -- |
| Hickory A | 183,650 | 132,787 | 28,979 | 10,080 | 5,793 | 3,307 | 1,736 | 618 | 184 | 103 | 38 | 12 | 13 | -- | -- |
| Hickory B | 342,730 | 266,143 | 44,311 | 15,860 | 7,703 | 4,830 | 2,372 | 913 | 444 | 122 | 28 | -- | 4 | -- | -- |
| Hard maple | 20,239 | 14,800 | 3,238 | 670 | 464 | 446 | 254 | 141 | 108 | 21 | 35 | 39 | 23 | -- | -- |
| Soft maple | 50,186 | 45,442 | 3,097 | 1,161 | 282 | 87 | 70 | -- | 18 | 7 | 6 | 9 | 7 | -- | -- |
| Beech | 360 | 360 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Sweetgum | 4,296 | 1,861 | 1,638 | 257 | 212 | 213 | 76 | 28 | -- | -- | 7 | -- | 4 | -- | -- |
| Tupelo and blackgum | 77,453 | 65,340 | 6,907 | 2,685 | 693 | 483 | 534 | 353 | 228 | 138 | 41 | 23 | 22 | 6 | -- |
| Ash | 21,896 | 15,018 | 3,145 | 1,774 | 825 | 614 | 244 | 197 | 9 | 57 | 7 | 6 | -- | -- | -- |
| Sycamore | 5,170 | 1,677 | 936 | 772 | 581 | 484 | 335 | 138 | 127 | 53 | 28 | 16 | 10 | 7 | 6 |
| Cottonwood | 115 | -- | -- | 53 | -- | -- | 16 | 11 | 24 | -- | 11 | -- | -- | -- | -- |
| River birch | 1,036 | -- | 385 | 249 | 140 | 106 | 57 | 54 | 26 | 7 | -- | 9 | 3 | -- | -- |
| Basswood | 52 | -- | -- | -- | -- | 29 | 23 | -- | -- | -- | -- | -- | -- | -- | -- |
| Black walnut | 10,690 | 3,957 | 2,259 | 2,121 | 1,143 | 706 | 344 | 96 | 21 | 26 | 13 | -- | 4 | -- | -- |
| Black cherry | 4,943 | 3,352 | 1,153 | 164 | 207 | -- | 32 | 29 | 6 | -- | -- | -- | -- | -- | -- |
| Elm | 65,176 | 46,113 | 11,179 | 3,791 | 2,358 | 776 | 454 | 260 | 155 | 12 | 48 | 12 | 14 | 4 | -- |
| Other hardwoods | 362,765 | 333,295 | 24,972 | 2,313 | 962 | 635 | 378 | 104 | 48 | 24 | 20 | 9 | 5 | -- | -- |
| Noncommercial species | 73,765 | 68,010 | 4,763 | 786 | 130 | 49 | 20 | -- | -- | 7 | -- | -- | -- | -- | -- |
| Total hardwoods | 2,684,439 | 1,831,893 | 422,465 | 175,327 | 104,661 | 69,732 | 41,020 | 20,947 | 9,922 | 4,265 | 2,063 | 1,005 | 990 | 142 | 7 |
| All species | 2,828,379 | 1,899,306 | 455,351 | 193,976 | 117,488 | 76,940 | 44,588 | 21,851 | 10,255 | 4,370 | 2,110 | 1,005 | 990 | 142 | 7 |

**Table 18.**--*Number of growing-stock trees on commercial forest land, by species and diameter class, Eastern Ozarks, Missouri, 1972*

(Thousand trees)

| Species | All Classes | Diameter class (inches at breast height) 1.0-2.9 | 3.0-4.9 | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-22.9 | 23.0-28.9 | 29.0-38.9 | 39.0+ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Softwoods: | | | | | | | | | | | | | | | |
| Shortleaf pine | 93,902 | 33,390 | 21,198 | 15,876 | 11,792 | 6,923 | 3,435 | 865 | 291 | 96 | 36 | -- | -- | -- | -- |
| Eastern redcedar | 17,809 | 12,209 | 3,608 | 1,166 | 510 | 199 | 72 | 12 | 33 | -- | -- | -- | -- | -- | -- |
| Total softwoods | 111,711 | 45,599 | 24,806 | 17,042 | 12,302 | 7,122 | 3,507 | 877 | 324 | 96 | 36 | -- | -- | -- | -- |
| Hardwoods: | | | | | | | | | | | | | | | |
| Select white oaks | 255,201 | 112,992 | 65,363 | 34,915 | 19,226 | 11,309 | 5,862 | 3,463 | 1,336 | 420 | 160 | 83 | 56 | 16 | -- |
| Other white oaks | 139,864 | 68,409 | 36,363 | 16,819 | 8,830 | 4,865 | 2,698 | 1,249 | 478 | 120 | 14 | 11 | 8 | -- | -- |
| Select red oaks | 23,462 | 11,512 | 5,021 | 2,553 | 1,531 | 1,214 | 631 | 441 | 302 | 127 | 65 | 22 | 41 | 2 | -- |
| Red oaks | 363,732 | 162,586 | 89,087 | 40,995 | 27,038 | 21,132 | 12,778 | 6,133 | 2,647 | 790 | 355 | 85 | 94 | 11 | 1 |
| Other red oaks | 20,740 | 9,570 | 4,962 | 2,433 | 1,428 | 1,345 | 469 | 293 | 154 | 50 | 22 | 6 | 8 | -- | -- |
| Hickory A | 77,729 | 44,143 | 18,654 | 7,028 | 4,128 | 2,050 | 1,144 | 404 | 85 | 69 | 18 | 6 | -- | -- | -- |
| Hickory B | 135,965 | 87,474 | 28,123 | 10,028 | 5,083 | 2,952 | 1,331 | 627 | 278 | 51 | 14 | -- | 4 | -- | -- |
| Hard maple | 10,692 | 8,385 | 1,549 | 215 | 198 | 173 | 98 | 37 | 24 | 1 | -- | 9 | 3 | -- | -- |
| Soft maple | 12,192 | 10,945 | 493 | 573 | 105 | 22 | 16 | -- | 18 | 7 | -- | 9 | 4 | -- | -- |
| Sweetgum | 1,272 | 300 | 494 | 84 | 136 | 188 | 57 | 13 | -- | -- | -- | -- | -- | -- | -- |
| Tupelo and blackgum | 18,696 | 13,406 | 2,926 | 1,198 | 380 | 200 | 286 | 133 | 120 | 32 | -- | 6 | 9 | -- | -- |
| Ash | 5,596 | 3,129 | 824 | 671 | 440 | 300 | 76 | 124 | 9 | 23 | -- | -- | -- | -- | -- |
| Sycamore | 3,574 | 673 | 818 | 614 | 453 | 422 | 283 | 123 | 100 | 47 | 28 | 5 | 7 | 1 | -- |
| Cottonwood | 115 | -- | -- | 54 | -- | -- | 16 | 11 | 24 | -- | 10 | -- | -- | -- | -- |
| River birch | 829 | -- | 386 | 131 | 103 | 84 | 43 | 54 | 9 | 7 | -- | 9 | 3 | -- | -- |
| Black walnut | 4,131 | 729 | 636 | 1,379 | 763 | 361 | 187 | 42 | 10 | 17 | 7 | -- | -- | -- | -- |
| Black cherry | 818 | 305 | 305 | 79 | 68 | -- | 32 | 29 | -- | -- | -- | -- | -- | -- | -- |
| Elm | 15,072 | 8,063 | 2,856 | 2,016 | 1,181 | 465 | 282 | 126 | 58 | 5 | 14 | 6 | -- | -- | -- |
| Other hardwoods | 37,752 | 32,737 | 3,687 | 430 | 355 | 327 | 107 | 54 | 21 | 14 | 15 | -- | 5 | -- | -- |
| Total hardwoods | 1,127,432 | 575,358 | 262,547 | 122,215 | 71,446 | 47,409 | 26,396 | 13,356 | 5,673 | 1,780 | 722 | 257 | 242 | 30 | 1 |
| All species | 1,239,143 | 620,957 | 287,353 | 139,257 | 83,748 | 54,531 | 29,903 | 14,233 | 5,997 | 1,876 | 758 | 257 | 242 | 30 | 1 |

**Table 19.**--*Number of short-log trees on commercial forest land, by species and diameter class, Eastern Ozarks, Missouri, 1972*

(Thousand trees)

| Species | All classes | Diameter class (inches at breast height) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-22.9 | 23.0-28.9 | 29.0-38.9 | 39.0+ |
| Softwoods: | | | | | | | | | | | |
| Shortleaf pine | 30 | -- | 21 | -- | -- | 9 | -- | -- | -- | -- | -- |
| Total softwoods | 30 | -- | 21 | -- | -- | 9 | -- | -- | -- | -- | -- |
| Hardwoods: | | | | | | | | | | | |
| Select white oaks | 2,295 | -- | 1,060 | 723 | 280 | 125 | 42 | 29 | 33 | 3 | -- |
| Other white oaks | 1,340 | -- | 632 | 417 | 217 | 51 | 13 | 6 | 4 | -- | -- |
| Select red oaks | 179 | -- | 74 | 40 | 62 | -- | -- | -- | -- | 3 | -- |
| Red oaks | 2,081 | -- | 1,145 | 502 | 206 | 110 | 58 | 38 | 15 | 7 | -- |
| Other red oaks | 320 | -- | 231 | 14 | 36 | 33 | 6 | -- | -- | -- | -- |
| Hickory A | 316 | -- | 202 | 52 | 34 | 9 | 14 | -- | 5 | -- | -- |
| Hickory B | 557 | -- | 404 | 94 | 52 | 7 | -- | -- | -- | -- | -- |
| Hard maple | 100 | -- | 30 | 40 | 26 | -- | -- | 4 | -- | -- | -- |
| Soft maple | 17 | -- | 17 | -- | -- | -- | -- | -- | -- | -- | -- |
| Sweetgum | 14 | -- | -- | 14 | -- | -- | -- | -- | -- | -- | -- |
| Tupelo and blackgum | 158 | -- | 74 | 41 | 12 | 25 | -- | 6 | -- | -- | -- |
| Ash | 123 | -- | 71 | 43 | -- | 9 | -- | -- | -- | -- | -- |
| Sycamore | 39 | -- | 35 | -- | -- | -- | -- | -- | -- | -- | 4 |
| River birch | 22 | -- | 14 | -- | 8 | -- | -- | -- | -- | -- | -- |
| Black walnut | 100 | -- | 73 | 16 | 11 | -- | -- | -- | -- | -- | -- |
| Elm | 134 | -- | 42 | 43 | 49 | -- | -- | -- | -- | -- | -- |
| Other hardwoods | 37 | -- | 17 | 12 | 8 | -- | -- | -- | -- | -- | -- |
| Total hardwoods | 7,832 | -- | 4,121 | 2,051 | 1,001 | 369 | 133 | 83 | 57 | 13 | 4 |
| All species | 7,862 | -- | 4,142 | 2,051 | 1,001 | 378 | 133 | 83 | 57 | 13 | 4 |

Table 20.--*Net volume of growing stock and sawtimber on commercial forest land, by species, Eastern Ozarks, Missouri, 1959 and 1972*

| Species | Growing stock | | Sawtimber | |
|---|---|---|---|---|
| | 1959[1] | 1972 | 1959[1] | 1972 |
| | Million cubic feet | | Million board feet[2] | |
| Softwoods: | | | | |
| Shortleaf pine | 157.8 | 245.2 | 418.8 | 818.4 |
| Cypress | 2.5 | -- | 16.0 | -- |
| Eastern redcedar | 3.7 | 8.6 | 6.9 | 20.3 |
| Total softwoods | 164.0 | 253.8 | 441.7 | 838.7 |
| Hardwoods: | | | | |
| Select white oaks | 394.9 | 500.4 | 722.1 | 1,005.1 |
| Other white oaks | 191.4 | 179.3 | 378.7 | 326.9 |
| Select red oaks | 67.8 | 66.4 | 153.6 | 179.8 |
| Red oaks | 580.2 | 861.0 | 1,147.6 | 2,168.8 |
| Other red oaks | 46.4 | 42.0 | 149.1 | 115.8 |
| Hickory A | 94.1 | 84.5 | 175.5 | 159.6 |
| Hickory B | 74.3 | 108.6 | 133.3 | 205.1 |
| Hard maple | 8.5 | 5.8 | 20.2 | 14.2 |
| Soft maple | 3.6 | 3.8 | 4.3 | 9.6 |
| Sweetgum | 5.0 | 3.5 | 7.8 | 4.3 |
| Tupelo and blackgum | 12.5 | 16.3 | 41.5 | 52.7 |
| Ash | 7.8 | 10.2 | 12.7 | 21.6 |
| Sycamore | 12.9 | 23.4 | 21.5 | 69.4 |
| Cottonwood | 5.0 | 2.2 | 23.9 | 9.7 |
| River birch | 1.4 | 5.3 | 2.1 | 17.2 |
| Black walnut | 8.8 | 14.7 | 4.3 | 22.7 |
| Black cherry | 1.4 | 1.6 | 7.1 | 4.9 |
| Elm | 15.3 | 22.1 | 17.1 | 37.3 |
| Other hardwoods | 7.3 | 10.7 | 15.6 | 23.1 |
| Total hardwoods | 1,538.6 | 1,961.8 | 3,038.0 | 4,447.8 |
| All species | 1,702.6 | 2,215.6 | 3,479.7 | 5,286.5 |

1/ Figures have been adjusted from those published previously for 1959 to conform to 1972 volumes because of changes in survey definitions and procedures.

2/ International 1/4-inch rule.

**Table 21.**--*Net volume on commercial forest land for Missouri's Eastern Ozarks Survey Unit and for individual counties within Unit, by species and kind of material, 1972*

ALL COUNTIES

| Species | Growing stock | | | Sawtimber | | | Rough and rotten trees |
|---|---|---|---|---|---|---|---|
| | Total | Poletimber trees | Sawtimber trees | Total | In sawtimber stands | Other stands | |
| | Thousand cords | | | Million board feet[1/] | | | Thousand cords |
| Softwoods: | | | | | | | |
| Shortleaf pine | 3,103.3 | 1,248.1 | 1,855.2 | 818.4 | 416.6 | 401.8 | 64.0 |
| Eastern redcedar | 109.0 | 61.5 | 47.5 | 20.3 | 10.6 | 9.7 | 24.4 |
| Total softwoods | 3,212.3 | 1,309.6 | 1,902.7 | 838.7 | 427.2 | 411.5 | 88.4 |
| Hardwoods: | | | | | | | |
| Select white oaks | 6,333.9 | 3,838.2 | 2,495.7 | 1,005.1 | 564.5 | 440.6 | 2,141.7 |
| Other white oaks | 2,270.1 | 1,456.9 | 813.2 | 326.9 | 202.1 | 124.8 | 1,522.9 |
| Select red oaks | 840.6 | 369.5 | 471.1 | 179.8 | 115.2 | 64.6 | 201.8 |
| Red oaks | 10,898.4 | 5,403.4 | 5,495.0 | 2,168.8 | 1,295.2 | 873.6 | 3,115.8 |
| Other red oaks | 531.5 | 267.5 | 264.0 | 115.8 | 81.5 | 34.3 | 614.3 |
| Hickory A | 1,068.9 | 657.6 | 411.3 | 159.6 | 90.5 | 69.1 | 380.7 |
| Hickory B | 1,374.6 | 867.1 | 507.5 | 205.1 | 94.8 | 110.3 | 580.4 |
| Hard maple | 73.8 | 36.4 | 37.4 | 14.2 | 10.4 | 3.8 | 129.7 |
| Soft maple | 47.7 | 23.8 | 23.9 | 9.6 | 9.6 | -- | 45.3 |
| Sweetgum | 44.5 | 32.8 | 11.7 | 4.3 | 2.7 | 1.6 | 15.2 |
| Tupelo and blackgum | 206.8 | 71.8 | 135.0 | 52.7 | 36.0 | 16.7 | 135.7 |
| Ash | 129.4 | 72.2 | 57.2 | 21.6 | 18.7 | 2.9 | 118.1 |
| Sycamore | 296.5 | 93.9 | 202.6 | 69.4 | 49.5 | 19.9 | 52.9 |
| Cottonwood | 27.4 | 2.4 | 25.0 | 9.7 | 9.7 | -- | -- |
| River birch | 67.0 | 23.8 | 43.2 | 17.2 | 11.3 | 5.9 | 15.0 |
| Basswood | -- | -- | -- | -- | -- | -- | 2.1 |
| Black walnut | 186.5 | 121.8 | 64.7 | 22.7 | 17.5 | 5.2 | 97.0 |
| Black cherry | 19.8 | 4.9 | 14.9 | 4.9 | 1.7 | 3.2 | 9.7 |
| Elm | 280.3 | 173.8 | 106.5 | 37.3 | 22.8 | 14.5 | 224.3 |
| Other hardwoods | 135.6 | 70.0 | 65.6 | 23.1 | 17.7 | 5.4 | 170.2 |
| Noncommercial species | -- | -- | -- | -- | -- | -- | 41.8 |
| Total hardwoods | 24,833.3 | 13,587.8 | 11,245.5 | 4,447.8 | 2,651.4 | 1,796.4 | 9,614.6 |
| All species | 28,045.6 | 14,897.4 | 13,148.2 | 5,286.5 | 3,078.6 | 2,207.9 | 9,703.0 |
| BOLLINGER COUNTY | | | | | | | |
| Softwoods: | | | | | | | |
| Shortleaf pine | 108.4 | 42.5 | 65.9 | 29.0 | 14.8 | 14.2 | 2.3 |
| Eastern redcedar | 5.9 | 3.0 | 2.9 | 1.3 | .8 | .5 | 1.2 |
| Total softwoods | 114.3 | 45.5 | 68.8 | 30.3 | 15.6 | 14.7 | 3.5 |
| Hardwoods: | | | | | | | |
| Select white oaks | 321.7 | 184.3 | 137.4 | 55.0 | 35.6 | 19.4 | 112.2 |
| Other white oaks | 111.7 | 69.4 | 42.3 | 17.0 | 11.6 | 5.4 | 75.4 |
| Select red oaks | 43.3 | 17.6 | 25.7 | 9.8 | 7.0 | 2.8 | 11.1 |
| Red oaks | 532.6 | 247.4 | 285.2 | 112.4 | 74.2 | 38.2 | 155.9 |
| Other red oaks | 40.6 | 14.8 | 25.8 | 11.4 | 9.9 | 1.5 | 34.0 |
| Hickory A | 56.4 | 32.9 | 23.5 | 9.0 | 5.8 | 3.2 | 19.6 |
| Hickory B | 68.3 | 41.9 | 26.4 | 10.7 | 5.8 | 4.9 | 29.2 |
| Hard maple | 7.0 | 3.5 | 3.5 | 1.3 | 1.1 | .2 | 9.1 |
| Soft maple | 3.4 | 1.3 | 2.1 | .8 | .8 | -- | 2.9 |
| Sweetgum | 3.4 | 2.4 | 1.0 | .4 | .3 | .1 | 1.0 |
| Tupelo and blackgum | 10.8 | 3.4 | 7.4 | 2.9 | 2.2 | .7 | 7.3 |
| Ash | 8.5 | 4.6 | 3.9 | 1.5 | 1.4 | .1 | 7.0 |
| Sycamore | 21.0 | 5.6 | 15.4 | 5.2 | 4.2 | 1.0 | 3.4 |
| Cottonwood | 2.4 | .2 | 2.2 | .8 | .8 | -- | -- |
| River birch | 4.6 | 1.5 | 3.1 | 1.2 | .8 | .4 | .9 |
| Basswood | -- | -- | -- | -- | -- | -- | .1 |
| Black walnut | 10.1 | 6.3 | 3.8 | 1.3 | 1.1 | .2 | 5.2 |
| Black cherry | 1.1 | .3 | .8 | .3 | .1 | .2 | .5 |
| Elm | 16.4 | 9.2 | 7.2 | 2.6 | 1.8 | .8 | 13.8 |
| Other hardwoods | 9.4 | 4.3 | 5.1 | 1.8 | 1.5 | .3 | 10.9 |
| Noncommercial species | -- | -- | -- | -- | -- | -- | 2.3 |
| Total hardwoods | 1,272.7 | 650.9 | 621.8 | 245.4 | 166.0 | 79.4 | 501.8 |
| All species | 1,387.0 | 696.4 | 690.6 | 275.7 | 181.6 | 94.1 | 505.3 |

1/ International 1/4-inch rule.

(Table 21 cont. on next page)

(Table 21 cont.)

BUTLER COUNTY

| Species | Growing stock | | | Sawtimber | | | Rough and rotten trees |
|---|---|---|---|---|---|---|---|
| | Total | Poletimber trees | Sawtimber trees | Total | In sawtimber stands | Other stands | |
| | Thousand cords | | | Million board feet[1] | | | Thousand cords |
| Softwoods: | | | | | | | |
| Shortleaf pine | 174.1 | 66.2 | 107.9 | 47.1 | 29.6 | 17.5 | 4.0 |
| Eastern redcedar | 7.0 | 3.9 | 3.1 | 1.4 | .8 | .6 | 1.3 |
| Total softwoods | 181.1 | 70.1 | 111.0 | 48.5 | 30.4 | 18.1 | 5.3 |
| Hardwoods | | | | | | | |
| Select white oaks | 240.8 | 143.5 | 97.3 | 39.2 | 23.1 | 16.1 | 79.6 |
| Other white oaks | 82.8 | 54.0 | 28.8 | 11.6 | 7.1 | 4.5 | 57.9 |
| Select red oaks | 30.0 | 12.9 | 17.1 | 6.5 | 4.2 | 2.3 | 8.2 |
| Red oaks | 396.1 | 200.2 | 195.9 | 77.2 | 45.2 | 32.0 | 111.2 |
| Other red oaks | 105.1 | 22.7 | 82.4 | 36.9 | 35.6 | 1.3 | 45.8 |
| Hickory A | 44.4 | 23.8 | 20.6 | 7.7 | 5.0 | 2.7 | 14.1 |
| Hickory B | 51.2 | 33.1 | 18.1 | 7.3 | 3.3 | 4.0 | 20.7 |
| Hard maple | 4.7 | 2.0 | 2.7 | 1.0 | .8 | .2 | 7.4 |
| Soft maple | 5.0 | 1.4 | 3.6 | 1.5 | 1.5 | -- | 3.0 |
| Sweetgum | 9.0 | 6.1 | 2.9 | 1.0 | .9 | .1 | 2.2 |
| Tupelo and blackgum | 8.7 | 3.0 | 5.7 | 2.2 | 1.6 | .6 | 4.6 |
| Ash | 12.9 | 7.8 | 5.1 | 1.9 | 1.8 | .1 | 8.6 |
| Sycamore | 32.2 | 7.8 | 24.4 | 8.4 | 7.0 | 1.4 | 4.7 |
| Cottonwood | 4.3 | .4 | 3.9 | 1.5 | 1.5 | -- | -- |
| River birch | 8.8 | 2.9 | 5.9 | 2.4 | 1.5 | .9 | 1.7 |
| Black walnut | 8.1 | 5.4 | 2.7 | .9 | .7 | .2 | 5.3 |
| Black cherry | .9 | .3 | .6 | .2 | .1 | .1 | .4 |
| Elm | 17.3 | 9.9 | 7.4 | 2.8 | 1.3 | 1.5 | 19.2 |
| Other hardwoods | 14.2 | 6.0 | 8.2 | 2.8 | 2.6 | .2 | 15.2 |
| Noncommercial species | -- | -- | -- | -- | -- | -- | 2.1 |
| Total hardwoods | 1,076.5 | 543.2 | 533.3 | 213.0 | 144.8 | 68.2 | 411.9 |
| All species | 1,257.6 | 613.3 | 644.3 | 261.5 | 175.2 | 86.3 | 417.2 |
| CARTER COUNTY | | | | | | | |
| Softwoods: | | | | | | | |
| Shortleaf pine | 226.2 | 91.3 | 134.9 | 59.5 | 30.8 | 28.7 | 4.6 |
| Eastern redcedar | 5.4 | 3.1 | 2.3 | 1.0 | .5 | .5 | 1.3 |
| Total softwoods | 231.6 | 94.4 | 137.2 | 60.5 | 31.3 | 29.2 | 5.9 |
| Hardwoods: | | | | | | | |
| Select white oaks | 377.0 | 229.2 | 147.8 | 59.6 | 32.5 | 27.1 | 131.8 |
| Other white oaks | 138.7 | 89.0 | 49.7 | 20.0 | 12.2 | 7.8 | 94.1 |
| Select red oaks | 50.5 | 22.6 | 27.9 | 10.6 | 6.7 | 3.9 | 12.4 |
| Red oaks | 658.6 | 328.5 | 330.1 | 130.3 | 77.3 | 53.0 | 194.0 |
| Other red oaks | 23.7 | 15.2 | 8.5 | 3.7 | 1.5 | 2.2 | 35.0 |
| Hickory A | 63.4 | 39.6 | 23.8 | 9.3 | 5.2 | 4.1 | 23.4 |
| Hickory B | 82.9 | 52.4 | 30.5 | 12.3 | 5.6 | 6.7 | 36.3 |
| Hard maple | 2.8 | 1.5 | 1.3 | .5 | .3 | .2 | 6.1 |
| Soft maple | 1.9 | 1.3 | .6 | .2 | .2 | -- | 2.2 |
| Sweetgum | 1.9 | 1.5 | .4 | .2 | .1 | .1 | .9 |
| Tupelo and blackgum | 12.4 | 4.4 | 8.0 | 3.1 | 2.1 | 1.0 | 8.3 |
| Ash | 5.8 | 3.4 | 2.4 | .9 | .7 | .2 | 5.9 |
| Sycamore | 11.3 | 4.4 | 6.9 | 2.4 | 1.4 | 1.0 | 2.0 |
| Cottonwood | .8 | .1 | .7 | .3 | .3 | -- | -- |
| River birch | .7 | .4 | .3 | .1 | -- | .1 | .4 |
| Basswood | -- | -- | -- | -- | -- | -- | .1 |
| Black walnut | 10.6 | 7.0 | 3.6 | 1.3 | 1.0 | .3 | 5.2 |
| Black cherry | 1.1 | .3 | .8 | .3 | .1 | .2 | .6 |
| Elm | 15.1 | 9.8 | 5.3 | 1.9 | 1.1 | .8 | 10.4 |
| Other hardwoods | 4.4 | 2.9 | 1.5 | .5 | .2 | .3 | 7.7 |
| Noncommercial species | -- | -- | -- | -- | -- | -- | 2.1 |
| Total hardwoods | 1,463.6 | 813.5 | 650.1 | 257.5 | 148.5 | 109.0 | 578.9 |
| All species | 1,695.2 | 907.9 | 787.3 | 318.0 | 179.8 | 138.2 | 584.8 |

1/ International 1/4-inch rule.

(Table 21 cont. on next page)

(Table 21 cont.)

CRAWFORD COUNTY

| Species | Growing stock | | | Sawtimber | | | Rough and rotten trees |
|---|---|---|---|---|---|---|---|
| | Total | Poletimber trees | Sawtimber trees | Total | In sawtimber stands | Other stands | |
| | Thousand cords | | | Million board feet[1/] | | | Thousand cords |
| Softwoods: | | | | | | | |
| Shortleaf pine | 169.7 | 68.3 | 101.4 | 44.9 | 20.3 | 24.6 | 3.5 |
| Eastern redcedar | 8.4 | 4.2 | 4.2 | 1.9 | 1.2 | .7 | 1.6 |
| Total softwoods | 178.1 | 72.5 | 105.6 | 46.8 | 21.5 | 25.3 | 5.1 |
| Hardwoods: | | | | | | | |
| Select white oaks | 514.4 | 309.7 | 204.7 | 82.2 | 47.4 | 34.8 | 174.0 |
| Other white oaks | 182.3 | 116.6 | 65.7 | 26.3 | 16.8 | 9.5 | 120.5 |
| Select red oaks | 69.6 | 29.9 | 39.7 | 15.1 | 9.9 | 5.2 | 16.6 |
| Red oaks | 881.3 | 429.2 | 452.1 | 178.4 | 108.6 | 69.8 | 249.2 |
| Other red oaks | 30.8 | 19.3 | 11.5 | 5.0 | 2.3 | 2.7 | 46.1 |
| Hickory A | 87.5 | 54.0 | 33.5 | 13.0 | 7.4 | 5.6 | 31.0 |
| Hickory B | 111.0 | 69.7 | 41.3 | 16.7 | 7.9 | 8.8 | 46.0 |
| Hard maple | 5.8 | 2.9 | 2.9 | 1.1 | .9 | .2 | 10.6 |
| Soft maple | 5.2 | 2.1 | 3.1 | 1.2 | 1.2 | -- | 4.4 |
| Sweetgum | 2.8 | 2.1 | .7 | .3 | .1 | .2 | 1.1 |
| Tupelo and blackgum | 16.4 | 5.6 | 10.8 | 4.2 | 2.9 | 1.3 | 11.3 |
| Ash | 11.4 | 5.5 | 5.9 | 2.2 | 2.0 | .2 | 10.4 |
| Sycamore | 31.5 | 9.2 | 22.3 | 7.6 | 5.8 | 1.8 | 5.4 |
| Cottonwood | 3.4 | .3 | 3.1 | 1.2 | 1.2 | -- | -- |
| River birch | 9.5 | 3.3 | 6.2 | 2.5 | 1.8 | .7 | 1.7 |
| Basswood | -- | -- | -- | -- | -- | -- | .2 |
| Black walnut | 15.3 | 10.0 | 5.3 | 1.9 | 1.5 | .4 | 8.2 |
| Black cherry | 1.7 | .4 | 1.3 | .4 | .1 | .3 | .7 |
| Elm | 22.8 | 13.7 | 9.1 | 3.2 | 2.1 | 1.1 | 19.9 |
| Other hardwoods | 15.0 | 7.1 | 7.9 | 2.8 | 2.4 | .4 | 16.7 |
| Noncommercial species | -- | -- | -- | -- | -- | -- | 3.7 |
| Total hardwoods | 2,017.7 | 1,090.6 | 927.1 | 365.3 | 222.3 | 143.0 | 777.7 |
| All species | 2,195.8 | 1,163.1 | 1,032.7 | 412.1 | 243.8 | 168.3 | 782.8 |

DENT COUNTY

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Softwoods: | | | | | | | |
| Shortleaf pine | 196.5 | 78.6 | 117.9 | 52.2 | 24.5 | 27.7 | 4.1 |
| Eastern redcedar | 5.2 | 3.0 | 2.2 | 1.0 | .5 | .5 | 1.5 |
| Total softwoods | 201.7 | 81.6 | 120.1 | 53.2 | 25.0 | 28.2 | 5.6 |
| Hardwoods: | | | | | | | |
| Select white oaks | 478.1 | 297.6 | 180.5 | 72.8 | 37.6 | 35.2 | 159.1 |
| Other white oaks | 176.3 | 115.2 | 61.1 | 24.5 | 14.5 | 10.0 | 119.4 |
| Select red oaks | 63.2 | 28.5 | 34.7 | 13.2 | 8.0 | 5.2 | 14.5 |
| Red oaks | 838.8 | 424.9 | 413.9 | 163.5 | 92.4 | 71.1 | 237.2 |
| Other red oaks | 29.6 | 19.1 | 10.5 | 4.5 | 1.7 | 2.8 | 45.3 |
| Hickory A | 79.8 | 50.6 | 29.2 | 11.4 | 5.9 | 5.5 | 29.0 |
| Hickory B | 106.0 | 67.3 | 38.7 | 15.6 | 6.6 | 9.0 | 43.8 |
| Hard maple | 4.0 | 2.0 | 2.0 | .8 | .5 | .3 | 8.1 |
| Soft maple | 2.3 | 1.6 | .7 | .3 | .3 | -- | 2.8 |
| Sweetgum | 2.3 | 1.7 | .6 | .2 | .1 | .1 | .9 |
| Tupelo and blackgum | 14.9 | 5.3 | 9.6 | 3.8 | 2.4 | 1.4 | 10.1 |
| Ash | 7.3 | 4.4 | 2.9 | 1.1 | .9 | .2 | 7.3 |
| Sycamore | 14.5 | 5.4 | 9.1 | 3.2 | 1.8 | 1.4 | 3.1 |
| Cottonwood | .9 | .1 | .8 | .3 | .3 | -- | -- |
| River birch | 1.7 | .8 | .9 | .4 | .2 | .2 | .6 |
| Basswood | -- | -- | -- | -- | -- | -- | .2 |
| Black walnut | 13.7 | 9.1 | 4.6 | 1.6 | 1.2 | .4 | 7.2 |
| Black cherry | 1.4 | .3 | 1.1 | .4 | .2 | .2 | .8 |
| Elm | 19.0 | 12.4 | 6.6 | 2.3 | 1.3 | 1.0 | 14.3 |
| Other hardwoods | 6.4 | 4.0 | 2.4 | .9 | .4 | .5 | 9.5 |
| Noncommercial species | -- | -- | -- | -- | -- | -- | 2.9 |
| Total hardwoods | 1,860.2 | 1,050.3 | 809.9 | 320.8 | 176.3 | 144.5 | 716.1 |
| All species | 2,061.9 | 1,131.9 | 930.0 | 374.0 | 201.3 | 172.7 | 721.7 |

1/ International 1/4-inch rule.

(Table 21 cont. on next page)

(Table 21 cont.)

IRON COUNTY

| Species | Growing stock | | | Sawtimber | | | Rough and rotten trees |
|---|---|---|---|---|---|---|---|
| | Total | Poletimber trees | Sawtimber trees | Total | In sawtimber stands | Other stands | |
| | Thousand cords | | | Million board feet 1/ | | | Thousand cords |
| Softwoods: | | | | | | | |
| Shortleaf pine | 191.7 | 83.0 | 108.7 | 48.2 | 19.7 | 28.5 | 3.5 |
| Eastern redcedar | 7.1 | 4.2 | 2.9 | 1.2 | .5 | .7 | 1.4 |
| Total softwoods | 198.8 | 87.2 | 111.6 | 49.4 | 20.2 | 29.2 | 4.9 |
| Hardwoods: | | | | | | | |
| Select white oaks | 469.2 | 290.8 | 178.4 | 72.0 | 38.5 | 33.5 | 150.3 |
| Other white oaks | 165.7 | 107.7 | 58.0 | 23.3 | 13.9 | 9.4 | 106.1 |
| Select red oaks | 62.1 | 27.7 | 34.4 | 13.1 | 8.1 | 5.0 | 13.9 |
| Red oaks | 816.5 | 411.2 | 405.3 | 160.0 | 92.5 | 67.5 | 222.6 |
| Other red oaks | 27.9 | 18.0 | 9.9 | 4.2 | 1.7 | 2.5 | 40.3 |
| Hickory A | 76.9 | 48.4 | 28.5 | 11.2 | 6.0 | 5.2 | 26.3 |
| Hickory B | 100.4 | 63.6 | 36.8 | 14.9 | 6.6 | 8.3 | 41.1 |
| Hard maple | 4.4 | 2.3 | 2.1 | .8 | .6 | .2 | 8.1 |
| Soft maple | 2.6 | 1.6 | 1.0 | .4 | .4 | -- | 2.8 |
| Sweetgum | 2.1 | 1.6 | .5 | .2 | .1 | .1 | .7 |
| Tupelo and blackgum | 14.6 | 5.2 | 9.4 | 3.7 | 2.4 | 1.3 | 10.0 |
| Ash | 7.7 | 4.4 | 3.3 | 1.3 | 1.1 | .2 | 7.5 |
| Sycamore | 15.9 | 5.6 | 10.3 | 3.5 | 2.3 | 1.2 | 3.0 |
| Cottonwood | 1.1 | .1 | 1.0 | .4 | .4 | -- | -- |
| River birch | 3.8 | 1.4 | 2.4 | 1.0 | .6 | .4 | .9 |
| Basswood | -- | -- | -- | -- | -- | -- | .2 |
| Black walnut | 13.3 | 8.8 | 4.5 | 1.6 | 1.2 | .4 | 6.6 |
| Black cherry | 1.4 | .3 | 1.1 | .4 | .1 | .3 | .6 |
| Elm | 17.8 | 11.1 | 6.7 | 2.3 | 1.5 | .8 | 13.5 |
| Other hardwoods | 7.2 | 4.0 | 3.2 | 1.1 | .8 | .3 | 10.0 |
| Noncommercial species | -- | -- | -- | -- | -- | -- | 2.8 |
| Total hardwoods | 1,810.6 | 1,013.8 | 796.8 | 315.4 | 178.8 | 136.6 | 667.3 |
| All species | 2,009.4 | 1,101.0 | 908.4 | 364.8 | 199.0 | 165.8 | 672.2 |

MADISON COUNTY

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Softwoods: | | | | | | | |
| Shortleaf pine | 227.6 | 98.4 | 129.2 | 57.1 | 27.4 | 29.7 | 4.2 |
| Eastern redcedar | 8.2 | 5.0 | 3.2 | 1.3 | .6 | .7 | 1.5 |
| Total softwoods | 235.8 | 103.4 | 132.4 | 58.4 | 28.0 | 30.4 | 5.7 |
| Hardwoods: | | | | | | | |
| Select white oaks | 353.8 | 215.9 | 137.9 | 55.6 | 30.6 | 25.0 | 116.9 |
| Other white oaks | 123.5 | 78.9 | 44.6 | 18.0 | 11.2 | 6.8 | 80.6 |
| Select red oaks | 46.4 | 20.9 | 25.5 | 9.7 | 6.0 | 3.7 | 11.0 |
| Red oaks | 612.7 | 309.6 | 303.1 | 119.7 | 70.6 | 49.1 | 172.5 |
| Other red oaks | 21.5 | 14.0 | 7.5 | 3.2 | 1.4 | 1.8 | 30.5 |
| Hickory A | 58.3 | 36.0 | 22.3 | 8.7 | 4.9 | 3.8 | 20.4 |
| Hickory B | 75.1 | 47.5 | 27.6 | 11.1 | 5.2 | 5.9 | 32.1 |
| Hard maple | 6.3 | 2.8 | 3.5 | 1.3 | 1.1 | .2 | 9.1 |
| Soft maple | 2.9 | 1.4 | 1.5 | .6 | .6 | -- | 2.8 |
| Sweetgum | 1.7 | 1.3 | .4 | .2 | .1 | .1 | .7 |
| Tupelo and blackgum | 11.8 | 4.1 | 7.7 | 3.0 | 2.1 | .9 | 7.2 |
| Ash | 7.3 | 3.8 | 3.5 | 1.3 | 1.2 | .1 | 6.9 |
| Sycamore | 18.5 | 5.5 | 13.0 | 4.4 | 3.4 | 1.0 | 3.6 |
| Cottonwood | 1.6 | .1 | 1.5 | .6 | .6 | -- | -- |
| River birch | 6.2 | 2.0 | 4.2 | 1.7 | 1.2 | .5 | 1.1 |
| Basswood | -- | -- | -- | -- | -- | -- | .1 |
| Black walnut | 10.6 | 7.0 | 3.6 | 1.2 | 1.0 | .2 | 5.4 |
| Black cherry | 1.1 | .3 | .8 | .3 | .1 | .2 | .4 |
| Elm | 16.4 | 9.7 | 6.7 | 2.3 | 1.6 | .7 | 12.7 |
| Other hardwoods | 9.6 | 4.1 | 5.5 | 1.9 | 1.6 | .3 | 10.2 |
| Noncommercial species | -- | -- | -- | -- | -- | -- | 2.6 |
| Total hardwoods | 1,385.3 | 764.9 | 620.4 | 244.8 | 144.5 | 100.3 | 526.8 |
| All species | 1,621.1 | 868.3 | 752.8 | 303.2 | 172.5 | 130.7 | 532.5 |

1/ International 1/4-inch rule.

(Table 21 cont. on next page)

(Table 21 cont.)

| Species | Growing stock | | | Sawtimber | | | Rough and rotten trees |
|---|---|---|---|---|---|---|---|
| | Total | Poletimber trees | Sawtimber trees | Total | In sawtimber stands | Other stands | |
| | Thousand cords | | | Million board feet[1] | | | Thousand cords |
| **OREGON COUNTY** | | | | | | | |
| Softwoods: | | | | | | | |
| Shortleaf pine | 236.3 | 92.8 | 143.5 | 63.3 | 33.6 | 29.7 | 5.3 |
| Eastern redcedar | 7.3 | 3.5 | 3.8 | 1.7 | 1.2 | .5 | 2.0 |
| Total softwoods | 243.6 | 96.3 | 147.3 | 65.0 | 34.8 | 30.2 | 7.3 |
| Hardwoods: | | | | | | | |
| Select white oaks | 442.0 | 263.3 | 178.7 | 72.0 | 40.8 | 31.2 | 165.2 |
| Other white oaks | 170.2 | 107.7 | 62.5 | 25.0 | 15.7 | 9.3 | 123.6 |
| Select red oaks | 59.8 | 26.2 | 33.6 | 12.8 | 8.4 | 4.4 | 15.7 |
| Red oaks | 771.2 | 379.0 | 392.2 | 155.0 | 93.9 | 61.1 | 242.1 |
| Other red oaks | 29.0 | 18.3 | 10.7 | 4.5 | 1.9 | 2.6 | 46.9 |
| Hickory A | 77.1 | 47.6 | 29.5 | 11.5 | 6.6 | 4.9 | 30.4 |
| Hickory B | 99.9 | 62.3 | 37.6 | 15.2 | 7.1 | 8.1 | 45.5 |
| Hard maple | 3.9 | 1.9 | 2.0 | .7 | .4 | .3 | 8.5 |
| Soft maple | 3.0 | 1.7 | 1.3 | .5 | .5 | -- | 3.0 |
| Sweetgum | 2.3 | 1.8 | .5 | .2 | .1 | .1 | .9 |
| Tupelo and blackgum | 14.6 | 5.0 | 9.6 | 3.8 | 2.5 | 1.3 | 10.2 |
| Ash | 8.0 | 4.3 | 3.7 | 1.4 | 1.1 | .3 | 7.8 |
| Sycamore | 17.7 | 5.8 | 11.9 | 4.1 | 2.8 | 1.3 | 3.2 |
| Cottonwood | 1.6 | .1 | 1.5 | .6 | .6 | -- | -- |
| River birch | 2.4 | .9 | 1.5 | .6 | .4 | .2 | .7 |
| Basswood | -- | -- | -- | -- | -- | -- | .2 |
| Black walnut | 13.0 | 8.5 | 4.5 | 1.6 | 1.2 | .4 | 6.8 |
| Black cherry | 1.3 | .4 | .9 | .3 | .1 | .2 | .8 |
| Elm | 19.4 | 12.4 | 7.0 | 2.5 | 1.5 | 1.0 | 14.6 |
| Other hardwoods | 8.0 | 4.6 | 3.4 | 1.2 | .8 | .4 | 11.4 |
| Noncommercial species | -- | -- | -- | -- | -- | -- | 2.7 |
| Total hardwoods | 1,744.4 | 951.8 | 792.6 | 313.5 | 186.4 | 127.1 | 740.2 |
| All species | 1,988.0 | 1,048.1 | 939.9 | 378.5 | 221.2 | 157.3 | 747.5 |
| **REYNOLDS COUNTY** | | | | | | | |
| Softwoods: | | | | | | | |
| Shortleaf pine | 285.4 | 115.7 | 169.7 | 75.2 | 35.4 | 39.8 | 5.6 |
| Eastern redcedar | 10.5 | 5.9 | 4.6 | 2.0 | 1.0 | 1.0 | 2.1 |
| Total softwoods | 295.9 | 121.6 | 174.3 | 77.2 | 36.4 | 40.8 | 7.7 |
| Hardwoods: | | | | | | | |
| Select white oaks | 700.7 | 425.5 | 275.2 | 110.7 | 63.0 | 47.7 | 227.6 |
| Other white oaks | 244.0 | 155.9 | 88.1 | 35.4 | 22.4 | 13.0 | 156.4 |
| Select red oaks | 93.4 | 40.7 | 52.7 | 20.2 | 13.0 | 7.2 | 21.4 |
| Red oaks | 1,201.2 | 590.4 | 610.8 | 241.0 | 145.7 | 95.3 | 330.4 |
| Other red oaks | 44.2 | 26.4 | 17.8 | 7.7 | 4.2 | 3.5 | 60.0 |
| Hickory A | 116.2 | 72.0 | 44.2 | 17.2 | 9.8 | 7.4 | 39.7 |
| Hickory B | 149.1 | 93.8 | 55.3 | 22.3 | 10.6 | 11.7 | 61.1 |
| Hard maple | 7.9 | 3.9 | 4.0 | 1.5 | 1.2 | .3 | 13.7 |
| Soft maple | 4.4 | 2.4 | 2.0 | .8 | .8 | -- | 4.8 |
| Sweetgum | 3.7 | 2.7 | 1.0 | .3 | .2 | .1 | 1.4 |
| Tupelo and blackgum | 22.6 | 7.8 | 14.8 | 5.8 | 4.0 | 1.8 | 14.9 |
| Ash | 12.5 | 6.9 | 5.6 | 2.1 | 1.8 | .3 | 11.9 |
| Sycamore | 27.5 | 9.2 | 18.3 | 6.2 | 4.3 | 1.9 | 5.1 |
| Cottonwood | 2.2 | .2 | 2.0 | .8 | .8 | -- | -- |
| River birch | 6.5 | 2.3 | 4.2 | 1.7 | 1.2 | .5 | 1.4 |
| Basswood | -- | -- | -- | -- | -- | -- | .2 |
| Black walnut | 20.4 | 13.2 | 7.2 | 2.5 | 2.0 | .5 | 10.0 |
| Black cherry | 2.2 | .5 | 1.7 | .6 | .2 | .4 | .9 |
| Elm | 29.1 | 17.7 | 11.4 | 3.9 | 2.5 | 1.4 | 21.7 |
| Other hardwoods | 12.8 | 6.6 | 6.2 | 2.2 | 1.7 | .5 | 16.2 |
| Noncommercial species | -- | -- | -- | -- | -- | -- | 4.5 |
| Total hardwoods | 2,700.6 | 1,478.1 | 1,222.5 | 482.9 | 289.4 | 193.5 | 1,003.3 |
| All species | 2,996.5 | 1,599.7 | 1,396.8 | 560.1 | 325.8 | 234.3 | 1,011.0 |

1/ International 1/4-inch rule.

(Table 21 cont. on next page)

(Table 21 cont.)

RIPLEY COUNTY

| Species | Growing stock | | | Sawtimber | | | Rough and rotten trees |
|---|---|---|---|---|---|---|---|
| | Total | Poletimber trees | Sawtimber trees | Total | In sawtimber stands | Other stands | |
| | Thousand cords | | | Million board feet 1/ | | | Thousand cords |
| Softwoods: | | | | | | | |
| Shortleaf pine | 265.6 | 104.9 | 160.7 | 70.4 | 39.9 | 30.5 | 5.7 |
| Eastern redcedar | 6.8 | 4.0 | 2.8 | 1.2 | .7 | .5 | 1.5 |
| Total softwoods | 272.4 | 108.9 | 163.5 | 71.6 | 40.6 | 31.0 | 7.2 |
| Hardwoods: | | | | | | | |
| Select white oaks | 395.6 | 241.9 | 153.7 | 61.9 | 33.5 | 28.4 | 137.7 |
| Other white oaks | 144.1 | 93.6 | 50.5 | 20.3 | 12.1 | 8.2 | 99.4 |
| Select red oaks | 52.1 | 23.4 | 28.7 | 10.9 | 6.8 | 4.1 | 12.9 |
| Red oaks | 684.0 | 345.2 | 338.8 | 133.7 | 78.0 | 55.7 | 200.1 |
| Other red oaks | 32.8 | 17.3 | 15.5 | 6.7 | 4.5 | 2.2 | 40.2 |
| Hickory A | 66.6 | 41.2 | 25.4 | 9.8 | 5.4 | 4.4 | 24.6 |
| Hickory B | 87.8 | 56.2 | 31.6 | 12.8 | 5.6 | 7.2 | 37.8 |
| Hard maple | 4.7 | 2.2 | 2.5 | 1.0 | .7 | .3 | 8.6 |
| Soft maple | 3.8 | 1.6 | 2.2 | .9 | .9 | -- | 3.2 |
| Sweetgum | 3.0 | 2.3 | .7 | .3 | .2 | .1 | 1.0 |
| Tupelo and blackgum | 13.4 | 4.8 | 8.6 | 3.4 | 2.3 | 1.1 | 8.3 |
| Ash | 9.3 | 5.0 | 4.3 | 1.6 | 1.4 | .2 | 8.2 |
| Sycamore | 24.5 | 7.5 | 17.0 | 5.9 | 4.2 | 1.7 | 4.3 |
| Cottonwood | 2.4 | .2 | 2.2 | .9 | .9 | -- | -- |
| River birch | 7.3 | 2.5 | 4.8 | 1.9 | 1.3 | .6 | 1.4 |
| Basswood | -- | -- | -- | -- | -- | -- | .1 |
| Black walnut | 11.8 | 7.8 | 4.0 | 1.4 | 1.0 | .4 | 6.5 |
| Black cherry | 1.3 | .3 | 1.0 | .3 | .1 | .2 | .8 |
| Elm | 19.6 | 12.5 | 7.1 | 2.5 | 1.5 | 1.0 | 16.7 |
| Other hardwoods | 12.1 | 5.9 | 6.2 | 2.2 | 1.8 | .4 | 13.4 |
| Noncommercial species | -- | -- | -- | -- | -- | -- | 3.0 |
| Total hardwoods | 1,576.2 | 871.4 | 704.8 | 278.4 | 162.2 | 116.2 | 628.2 |
| All species | 1,848.6 | 980.3 | 868.3 | 350.0 | 202.8 | 147.2 | 635.4 |
| ST. FRANCOIS COUNTY | | | | | | | |
| Softwoods: | | | | | | | |
| Shortleaf pine | 70.9 | 30.0 | 40.9 | 18.2 | 6.8 | 11.4 | 1.5 |
| Eastern redcedar | 6.5 | 4.0 | 2.5 | 1.0 | .3 | .7 | 1.8 |
| Total softwoods | 77.4 | 34.0 | 43.4 | 19.2 | 7.1 | 12.1 | 3.3 |
| Hardwoods: | | | | | | | |
| Select white oaks | 193.6 | 118.0 | 75.6 | 30.4 | 16.3 | 14.1 | 72.5 |
| Other white oaks | 75.5 | 48.6 | 26.9 | 10.8 | 6.4 | 4.4 | 55.2 |
| Select red oaks | 26.8 | 12.1 | 14.7 | 5.6 | 3.6 | 2.0 | 6.6 |
| Red oaks | 338.5 | 168.3 | 170.2 | 67.2 | 39.4 | 27.8 | 104.4 |
| Other red oaks | 13.4 | 8.5 | 4.9 | 2.1 | .8 | 1.3 | 21.2 |
| Hickory A | 34.5 | 21.4 | 13.1 | 5.1 | 2.7 | 2.4 | 14.1 |
| Hickory B | 44.4 | 28.0 | 16.4 | 6.6 | 2.8 | 3.8 | 20.1 |
| Hard maple | 2.5 | 1.2 | 1.3 | .5 | .3 | .2 | 5.2 |
| Soft maple | 2.1 | .8 | 1.3 | .5 | .5 | -- | 1.7 |
| Sweetgum | 1.4 | 1.1 | .3 | .1 | -- | .1 | .6 |
| Tupelo and blackgum | 5.9 | 2.1 | 3.8 | 1.5 | 1.0 | .5 | 4.4 |
| Ash | 5.3 | 2.8 | 2.5 | .9 | .8 | .1 | 5.0 |
| Sycamore | 13.8 | 4.3 | 9.5 | 3.3 | 2.3 | 1.0 | 2.5 |
| Cottonwood | 1.4 | .1 | 1.3 | .5 | .5 | -- | -- |
| River birch | 3.7 | 1.3 | 2.4 | .9 | .7 | .2 | .8 |
| Basswood | -- | -- | -- | -- | -- | -- | .1 |
| Black walnut | 6.1 | 4.1 | 2.0 | .7 | .5 | .2 | 3.8 |
| Black cherry | .7 | .2 | .5 | .2 | .1 | .1 | .5 |
| Elm | 10.2 | 6.5 | 3.7 | 1.3 | .7 | .6 | 9.9 |
| Other hardwoods | 6.6 | 3.4 | 3.2 | 1.2 | .9 | .3 | 7.7 |
| Noncommercial species | -- | -- | -- | -- | -- | -- | 1.7 |
| Total hardwoods | 786.4 | 432.8 | 353.6 | 139.4 | 80.3 | 59.1 | 338.0 |
| All species | 863.8 | 466.8 | 397.0 | 158.6 | 87.4 | 71.2 | 341.3 |

1/ International 1/4-inch rule.

(Table 21 cont. on next page)

(Table 21 cont.)

| Species | Growing stock | | | Sawtimber | | | Rough and rotten trees |
|---|---|---|---|---|---|---|---|
| | Total | Poletimber trees | Sawtimber trees | Total | In sawtimber stands | Other stands | |
| | Thousand cords | | | Million board feet[1/] | | | Thousand cords |
| **SHANNON COUNTY** | | | | | | | |
| Softwoods: | | | | | | | |
| Shortleaf pine | 337.8 | 136.8 | 201.0 | 89.1 | 42.1 | 47.0 | 6.8 |
| Eastern redcedar | 9.0 | 5.1 | 3.9 | 1.6 | .9 | .7 | 2.5 |
| Total softwoods | 346.8 | 141.9 | 204.9 | 90.7 | 43.0 | 47.7 | 9.3 |
| Hardwoods: | | | | | | | |
| Select white oaks | 724.8 | 443.0 | 281.8 | 113.9 | 61.2 | 52.7 | 248.5 |
| Other white oaks | 268.1 | 174.3 | 93.8 | 37.8 | 22.1 | 15.7 | 181.7 |
| Select red oaks | 96.2 | 42.6 | 53.6 | 20.5 | 12.7 | 7.8 | 22.6 |
| Red oaks | 1,270.5 | 638.6 | 631.9 | 249.6 | 144.3 | 105.3 | 365.7 |
| Other red oaks | 45.4 | 29.0 | 16.4 | 7.2 | 2.8 | 4.4 | 68.7 |
| Hickory A | 121.9 | 76.4 | 45.5 | 17.7 | 9.5 | 8.2 | 44.3 |
| Hickory B | 160.1 | 101.1 | 59.0 | 23.9 | 10.4 | 13.5 | 67.8 |
| Hard maple | 5.4 | 2.9 | 2.5 | 1.0 | .6 | .4 | 11.6 |
| Soft maple | 3.7 | 2.5 | 1.2 | .6 | .6 | -- | 4.2 |
| Sweetgum | 3.5 | 2.7 | .8 | .2 | .1 | .1 | 1.2 |
| Tupelo and blackgum | 23.1 | 8.1 | 15.0 | 5.8 | 3.8 | 2.0 | 15.7 |
| Ash | 11.7 | 6.8 | 4.9 | 2.0 | 1.5 | .5 | 11.3 |
| Sycamore | 22.5 | 8.4 | 14.1 | 4.9 | 2.8 | 2.1 | 4.3 |
| Cottonwood | 1.4 | .1 | 1.3 | .4 | .4 | -- | -- |
| River birch | 3.3 | 1.4 | 1.9 | .7 | .3 | .4 | 1.2 |
| Basswood | -- | -- | -- | -- | -- | -- | .2 |
| Black walnut | 20.7 | 13.8 | 6.9 | 2.5 | 1.9 | .6 | 10.5 |
| Black cherry | 2.2 | .5 | 1.7 | .3 | .1 | .2 | 1.2 |
| Elm | 28.5 | 18.6 | 9.9 | 3.3 | 2.0 | 1.3 | 21.0 |
| Other hardwoods | 9.8 | 6.3 | 3.5 | 1.2 | .6 | .6 | 14.9 |
| Noncommercial species | -- | -- | -- | -- | -- | -- | 4.3 |
| Total hardwoods | 2,822.8 | 1,577.1 | 1,245.7 | 493.5 | 277.7 | 215.8 | 1,100.9 |
| All species | 3.169.6 | 1,719.0 | 1,450.6 | 584.2 | 320.7 | 263.5 | 1,110.2 |
| **WASHINGTON COUNTY** | | | | | | | |
| Softwoods: | | | | | | | |
| Shortleaf pine | 296.6 | 114.1 | 182.5 | 80.0 | 46.6 | 33.4 | 6.5 |
| Eastern redcedar | 11.4 | 6.4 | 5.0 | 2.1 | 1.1 | 1.0 | 2.4 |
| Total softwoods | 308.0 | 120.5 | 187.5 | 82.1 | 47.7 | 34.4 | 8.9 |
| Hardwoods: | | | | | | | |
| Select white oaks | 579.2 | 346.6 | 232.6 | 93.5 | 55.2 | 38.3 | 190.2 |
| Other white oaks | 201.0 | 127.0 | 74.0 | 29.8 | 19.3 | 10.5 | 130.4 |
| Select red oaks | 76.6 | 33.1 | 43.5 | 16.7 | 11.1 | 5.6 | 18.2 |
| Red oaks | 981.3 | 476.0 | 505.3 | 199.2 | 124.3 | 74.9 | 274.3 |
| Other red oaks | 33.2 | 21.1 | 12.1 | 5.2 | 2.5 | 2.7 | 48.9 |
| Hickory A | 96.1 | 59.0 | 37.1 | 14.4 | 8.4 | 6.0 | 33.1 |
| Hickory B | 124.2 | 77.9 | 46.3 | 18.7 | 9.3 | 9.4 | 51.4 |
| Hard maple | 9.0 | 4.6 | 4.4 | 1.7 | 1.3 | .4 | 13.5 |
| Soft maple | 3.9 | 2.1 | 1.8 | .7 | .7 | -- | 4.0 |
| Sweetgum | 2.8 | 2.1 | .7 | .3 | .1 | .2 | 1.0 |
| Tupelo and blackgum | 19.5 | 6.7 | 12.8 | 4.9 | 3.5 | 1.4 | 12.3 |
| Ash | 10.9 | 6.1 | 4.8 | 1.8 | 1.6 | .2 | 10.5 |
| Sycamore | 24.1 | 7.9 | 16.2 | 5.5 | 3.9 | 1.6 | 4.6 |
| Cottonwood | 2.0 | .2 | 1.8 | .7 | .7 | -- | -- |
| River birch | 5.8 | 2.0 | 3.8 | 1.5 | .9 | .6 | 1.3 |
| Basswood | -- | -- | -- | -- | -- | -- | .2 |
| Black walnut | 17.1 | 10.8 | 6.3 | 2.2 | 1.7 | .5 | 8.3 |
| Black cherry | 1.8 | .4 | 1.4 | .5 | .2 | .3 | .8 |
| Elm | 25.7 | 15.8 | 9.9 | 3.4 | 2.3 | 1.1 | 19.1 |
| Other hardwoods | 11.2 | 5.8 | 5.4 | 1.9 | 1.4 | .5 | 14.1 |
| Noncommercial species | -- | -- | -- | -- | -- | -- | 3.8 |
| Total hardwoods | 2,225.4 | 1,205.2 | 1,020.2 | 402.6 | 248.4 | 154.2 | 840.0 |
| All species | 2,533.4 | 1,325.7 | 1,207.7 | 484.7 | 296.1 | 188.6 | 848.9 |

1/ International 1/4-inch rule.

(Table 21 cont. on next page)

(Table 21 cont.)

WAYNE COUNTY

| Species | Growing stock | | | Sawtimber | | | Rough and rotten trees |
|---|---|---|---|---|---|---|---|
| | Total | Poletimber trees | Sawtimber trees | Total | In sawtimber stands | Other stands | |
| | Thousand cords | | | Million board feet[1] | | | Thousand cords |
| Softwoods: | | | | | | | |
| Shortleaf pine | 316.5 | 125.5 | 191.0 | 84.2 | 45.1 | 39.1 | 6.4 |
| Eastern redcedar | 10.3 | 6.2 | 4.1 | 1.6 | .5 | 1.1 | 2.3 |
| Total softwoods | 326.8 | 131.7 | 195.1 | 85.8 | 45.6 | 40.2 | 8.7 |
| Hardwoods: | | | | | | | |
| Select white oaks | 543.0 | 328.9 | 214.1 | 86.3 | 49.2 | 37.1 | 176.1 |
| Other white oaks | 186.2 | 119.0 | 67.2 | 27.1 | 16.8 | 10.3 | 122.2 |
| Select red oaks | 70.6 | 31.3 | 39.3 | 15.1 | 9.7 | 5.4 | 16.7 |
| Red oaks | 915.1 | 454.9 | 460.2 | 181.6 | 108.8 | 72.8 | 256.2 |
| Other red oaks | 54.3 | 23.8 | 30.5 | 13.5 | 10.7 | 2.8 | 51.4 |
| Hickory A | 89.8 | 54.7 | 35.1 | 13.6 | 7.9 | 5.7 | 30.7 |
| Hickory B | 114.2 | 72.3 | 41.9 | 17.0 | 8.0 | 9.0 | 47.5 |
| Hard maple | 5.4 | 2.7 | 2.7 | 1.0 | .6 | .4 | 10.1 |
| Soft maple | 3.5 | 2.0 | 1.5 | .6 | .6 | -- | 3.5 |
| Sweetgum | 4.6 | 3.4 | 1.2 | .4 | .3 | .1 | 1.6 |
| Tupelo and blackgum | 18.1 | 6.3 | 11.8 | 4.6 | 3.2 | 1.4 | 11.1 |
| Ash | 10.8 | 6.4 | 4.4 | 1.6 | 1.4 | .2 | 9.8 |
| Sycamore | 21.5 | 7.3 | 14.2 | 4.8 | 3.3 | 1.5 | 3.7 |
| Cottonwood | 1.9 | .2 | 1.7 | .7 | .7 | -- | -- |
| River birch | 2.7 | 1.1 | 1.6 | .6 | .4 | .2 | .9 |
| Basswood | -- | -- | -- | -- | -- | -- | .2 |
| Black walnut | 15.7 | 10.0 | 5.7 | 2.0 | 1.5 | .5 | 8.0 |
| Black cherry | 1.6 | .4 | 1.2 | .4 | .1 | .3 | .7 |
| Elm | 23.0 | 14.5 | 8.5 | 3.0 | 1.6 | 1.4 | 17.5 |
| Other hardwoods | 8.9 | 5.0 | 3.9 | 1.4 | 1.0 | .4 | 12.3 |
| Noncommercial species | -- | -- | -- | -- | -- | -- | 3.3 |
| Total hardwoods | 2,090.9 | 1,144.2 | 946.7 | 375.3 | 225.8 | 149.5 | 783.5 |
| All species | 2,417.7 | 1,275.9 | 1,141.8 | 461.1 | 271.4 | 189.7 | 792.2 |

1/ International 1/4-inch rule.

**Table 22.--*Net volume of timber on commercial forest land, by class of timber, and softwoods and hardwoods, Eastern Ozarks, Missouri, 1972***

**(Million cubic feet)**

| Class of timber | All species | Softwoods | Hardwoods |
|---|---|---|---|
| Growing stock trees: | | | |
| Saw log trees: | | | |
| Saw log portion | 763.7 | 120.2 | 643.5 |
| Upper stem portion | 275.0 | 30.1 | 244.9 |
| Total sawtimber | 1,038.7 | 150.3 | 888.4 |
| Poletimber trees | 1,176.9 | 103.5 | 1,073.4 |
| Total growing stock | 2,215.6 | 253.8 | 1,961.8 |
| Cull trees: | | | |
| Rough cull trees: | | | |
| Sawtimber | 190.8 | .6 | 190.2 |
| Poletimber | 323.9 | 4.9 | 319.0 |
| Total rough cull | 514.7 | 5.5 | 509.2 |
| Short log cull trees: | | | |
| Sawtimber | 119.8 | .3 | 119.5 |
| Poletimber | .9 | -- | .9 |
| Total short log | 120.7 | .3 | 120.4 |
| Rotten cull trees: | | | |
| Sawtimber | 75.7 | .3 | 75.4 |
| Poletimber | 55.4 | .9 | 54.5 |
| Total rotten cull | 131.1 | 1.2 | 129.9 |
| Total cull | 766.5 | 7.0 | 759.5 |
| Salvable dead trees: | | | |
| Sawtimber | 36.0 | 2.7 | 33.3 |
| Poletimber | 21.3 | 1.9 | 19.4 |
| Total salvable dead | 57.3 | 4.6 | 52.7 |
| All classes | 3,039.4 | 265.4 | 2,774.0 |

Table 23.--*Net volume of growing stock, sawtimber, and rough and rotten trees on commercial forest land, by individual species, Eastern Ozarks, Missouri, 1972*

| Species | Growing stock | Sawtimber | Rough and rotten trees |
|---|---|---|---|
| | Million cubic feet | Million board feet[1] | Million cubic feet |
| Softwoods: | | | |
| Shortleaf pine | 245.2 | 818.4 | 5.1 |
| Eastern redcedar | 8.6 | 20.3 | 1.9 |
| Total softwoods | 253.8 | 838.7 | 7.0 |
| Hardwoods: | | | |
| Select white oak group | | | |
| White oak | 491.3 | 978.5 | 159.6 |
| Bur oak | .7 | 3.8 | .3 |
| Chinkapin oak | 6.2 | 15.1 | 8.7 |
| Overcup oak | 1.1 | 3.2 | .4 |
| Swamp chestnut oak | .3 | 1.5 | .1 |
| Swamp white oak | .8 | 3.0 | .1 |
| Other white oak group | | | |
| Post oak | 179.3 | 326.9 | 120.3 |
| Select red oak group | | | |
| Cherrybark oak | .3 | 1.6 | .5 |
| Northern red oak | 65.3 | 176.4 | 14.8 |
| Shumard oak | .8 | 1.8 | .6 |
| Red oak group | | | |
| Black oak | 571.7 | 1,426.6 | 181.5 |
| Scarlet oak | 273.5 | 706.3 | 58.5 |
| Southern red oak | 15.8 | 35.9 | 6.1 |
| Other red oak group | | | |
| Blackjack oak | 27.1 | 47.6 | 42.9 |
| Pin oak | 8.0 | 39.1 | 1.9 |
| Shingle oak | 1.1 | 2.8 | 2.3 |
| Willow oak | 5.8 | 26.3 | 1.4 |
| Hickory A group | | | |
| Mockernut hickory | 70.7 | 125.7 | 24.6 |
| Pecan | .6 | 1.4 | -- |
| Shagbark hickory | 7.5 | 17.6 | 4.3 |
| Shellbark hickory | 5.7 | 14.9 | 1.2 |
| Hickory B group | | | |
| Black hickory | 30.4 | 49.3 | 10.1 |
| Bitternut hickory | 5.1 | 9.3 | 2.1 |
| Pignut hickory | 72.8 | 144.8 | 33.7 |
| Water hickory | .3 | 1.7 | -- |
| Hardwoods (cont.): | | | |
| Hard maple group | | | |
| Sugar maple | 5.8 | 14.2 | 10.2 |
| Soft maple group | | | |
| Red maple | 1.5 | -- | 2.0 |
| Silver maple | 2.3 | 9.6 | 1.6 |
| Sweetgum | 3.5 | 4.3 | 1.2 |
| Tupelo and blackgum group | | | |
| Blackgum | 16.3 | 52.7 | 10.7 |
| Ash group | | | |
| White ash | 5.2 | 9.4 | 6.3 |
| Green ash | 5.0 | 12.2 | 3.0 |
| Sycamore group | | | |
| American sycamore | 23.4 | 69.4 | 4.2 |
| Cottonwood group | | | |
| Eastern cottonwood | 2.2 | 9.7 | -- |
| River birch | 5.3 | 17.2 | 1.2 |
| Basswood group | | | |
| American basswood | -- | -- | .2 |
| Black walnut | 14.7 | 22.7 | 7.7 |
| Black cherry | 1.6 | 4.9 | .8 |
| Elm group | | | |
| Winged elm | 3.1 | .8 | 1.3 |
| American elm | 13.4 | 28.0 | 10.9 |
| Slippery elm | 3.3 | 5.7 | 3.6 |
| Rock elm | 2.3 | 2.8 | 1.9 |
| Other hardwoods | | | |
| Hackberry | 2.9 | 3.2 | 1.7 |
| Flowering dogwood | .1 | -- | 1.8 |
| Common persimmon | .9 | -- | .7 |
| Honeylocust | 2.1 | 4.2 | 2.9 |
| Butternut | .1 | -- | .6 |
| Red mulberry | -- | -- | 2.4 |
| Black locust | .5 | 2.9 | .1 |
| Black willow | 3.7 | 12.8 | .4 |
| Sassafras | .4 | -- | 1.4 |
| Boxelder | -- | -- | 1.4 |
| Noncommercial | -- | -- | 3.3 |
| Total hardwoods | 1,961.8 | 4,447.8 | 759.5 |
| All species | 2,215.6 | 5,286.5 | 766.5 |

(Table 23 continued in next column)

1/ International 1/4-inch rule.

**Table 24.--*Net volume of growing stock and sawtimber on commercial forest land, by ownership class and species group, Eastern Ozarks, Missouri, 1972***

GROWING STOCK

| Ownership class | All species | Shortleaf pine | Other softwoods | Soft hardwoods | Hard hardwoods |
|---|---|---|---|---|---|
| | | Thousand cords | | | |
| National Forest | 7,969.0 | 1,706.2 | 3.2 | 178.3 | 6,081.3 |
| Other federal | 61.5 | 2.9 | -- | 1.7 | 56.9 |
| State, county and municipal | 1,190.6 | 100.0 | 9.0 | 24.5 | 1,057.1 |
| Forest industry | 1,680.0 | 221.1 | -- | 36.7 | 1,422.2 |
| Farmer and miscellaneous private | 17,144.5 | 1,073.1 | 96.8 | 766.4 | 15,208.2 |
| All ownerships | 28,045.6 | 3,103.3 | 109.0 | 1,007.6 | 23,825.7 |
| SAWTIMBER | | | | | |
| | | Million board feet[1/] | | | |
| National Forest | 1,641.7 | 512.3 | .2 | 33.4 | 1,095.8 |
| Other federal | 12.7 | 1.2 | -- | .4 | 11.1 |
| State, county, and municipal | 241.6 | 23.9 | 1.2 | -- | 216.5 |
| Forest industry | 308.3 | 29.7 | -- | 4.0 | 274.6 |
| Farmer and miscellaneous private | 3,082.2 | 251.3 | 18.9 | 166.2 | 2,645.8 |
| All ownerships | 5,286.5 | 818.4 | 20.3 | 204.0 | 4,243.8 |

1/ International 1/4-inch rule.

Table 25.--*Net volume of growing stock on commercial forest land, by species and diameter class, Eastern Ozarks, Missouri, 1972*

(Thousand cords)

| Species | All classes | Diameter class (inches at breast height) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 5.0-6.9 | 7.0-8.9 | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-22.9 | 23.0-28.9 | 29.0-38.9 | 39.0+ |
| Softwoods: | | | | | | | | | | | | | |
| Shortleaf pine | 3,103.3 | 476.0 | 772.1 | 833.3 | 622.2 | 223.5 | 109.5 | 45.9 | 20.8 | -- | -- | -- | -- |
| Eastern redcedar | 109.0 | 30.2 | 31.3 | 22.5 | 13.9 | 2.1 | 9.0 | -- | -- | -- | -- | -- | -- |
| Total softwoods | 3,212.3 | 506.2 | 803.4 | 855.8 | 636.1 | 225.6 | 118.5 | 45.9 | 20.8 | -- | -- | -- | -- |
| Hardwoods: | | | | | | | | | | | | | |
| Select white oaks | 6,333.9 | 1,300.7 | 1,298.4 | 1,239.1 | 936.1 | 789.5 | 404.7 | 170.6 | 69.7 | 53.5 | 47.2 | 24.4 | -- |
| Other white oaks | 2,270.1 | 497.5 | 504.5 | 455.0 | 375.9 | 247.2 | 134.1 | 38.3 | 5.5 | 6.3 | 5.8 | -- | -- |
| Select red oaks | 840.6 | 117.0 | 103.3 | 149.1 | 112.5 | 110.2 | 98.4 | 53.2 | 39.3 | 12.8 | 39.3 | 5.5 | -- |
| Red oaks | 10,898.4 | 1,220.3 | 1,764.1 | 2,419.0 | 2,246.3 | 1,562.3 | 912.1 | 357.3 | 182.5 | 48.4 | 77.5 | 10.1 | 98.5 |
| Other red oaks | 531.5 | 56.3 | 77.6 | 133.5 | 70.6 | 72.6 | 58.2 | 33.7 | 15.7 | 4.9 | 8.4 | -- | -- |
| Hickory A | 1,068.9 | 171.8 | 254.6 | 231.1 | 218.5 | 111.5 | 32.7 | 30.5 | 11.9 | 6.3 | -- | -- | -- |
| Hickory B | 1,374.6 | 253.2 | 292.0 | 321.9 | 224.9 | 158.9 | 94.8 | 20.6 | 5.0 | -- | 3.3 | -- | -- |
| Hard maple | 73.8 | 8.4 | 11.3 | 16.7 | 14.5 | 7.1 | 6.9 | .6 | -- | 5.1 | 3.2 | -- | -- |
| Soft maple | 47.7 | 16.1 | 5.1 | 2.6 | 3.0 | -- | 6.2 | 3.0 | -- | 7.7 | 4.0 | -- | -- |
| Sweetgum | 44.5 | 1.4 | 7.8 | 23.5 | 9.5 | 2.3 | -- | -- | -- | -- | -- | -- | -- |
| Tupelo and blackgum | 206.8 | 33.8 | 21.5 | 16.5 | 39.9 | 32.0 | 36.3 | 15.3 | -- | 4.6 | 6.9 | -- | -- |
| Ash | 129.4 | 16.1 | 26.3 | 29.8 | 14.9 | 28.7 | 2.2 | 11.4 | -- | -- | -- | -- | -- |
| Sycamore | 296.5 | 16.4 | 29.5 | 48.0 | 58.6 | 32.3 | 47.4 | 23.0 | 20.0 | 4.5 | 12.1 | 4.7 | -- |
| Cottonwood | 27.4 | 2.6 | -- | -- | 2.7 | 3.0 | 10.4 | -- | 8.7 | -- | -- | -- | -- |
| River birch | 67.0 | 3.5 | 9.2 | 11.0 | 10.3 | 17.0 | 3.5 | 2.7 | -- | 6.7 | 3.1 | -- | -- |
| Black walnut | 186.5 | 41.4 | 43.2 | 37.2 | 40.1 | 11.4 | 3.6 | 7.7 | 1.9 | -- | -- | -- | -- |
| Black cherry | 19.8 | 1.8 | 3.1 | -- | 6.8 | 8.1 | -- | -- | -- | -- | -- | -- | -- |
| Elm | 280.3 | 59.6 | 61.4 | 52.8 | 47.3 | 25.5 | 19.7 | 2.8 | 7.6 | 3.6 | -- | -- | -- |
| Other hardwoods | 135.6 | 9.2 | 22.1 | 38.8 | 20.5 | 17.8 | 6.4 | 5.2 | 13.1 | -- | 2.5 | -- | -- |
| Total hardwoods | 24,833.3 | 3,827.1 | 4,535.0 | 5,225.6 | 4,452.9 | 3,237.4 | 1,877.6 | 775.9 | 380.9 | 164.4 | 213.3 | 44.7 | 98.5 |
| All species | 28,045.6 | 4,333.3 | 5,338.4 | 6,081.4 | 5,089.0 | 3,463.0 | 1,996.1 | 821.8 | 401.7 | 164.4 | 213.3 | 44.7 | 98.5 |

**Table 26.--*Net volume of sawtimber on commercial forest land, by species and diameter class, Eastern Ozarks, Missouri, 1972***

**(Million board feet)[1/]**

| Species | All classes | Diameter class (inches at breast height) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-22.9 | 23.0-28.9 | 29.0-38.9 | 39.0+ |
| Softwoods: | | | | | | | | | | | |
| Shortleaf pine | 818.4 | 355.0 | 276.8 | 102.7 | 51.1 | 22.0 | 10.8 | -- | -- | -- | -- |
| Eastern redcedar | 20.3 | 9.0 | 6.2 | .9 | 4.2 | -- | -- | -- | -- | -- | -- |
| Total softwoods | 838.7 | 364.0 | 283.0 | 103.6 | 55.3 | 22.0 | 10.8 | -- | -- | -- | -- |
| Hardwoods: | | | | | | | | | | | |
| Select white oaks | 1,005.1 | -- | 398.7 | 314.9 | 154.5 | 66.7 | 27.9 | 17.2 | 18.0 | 7.2 | -- |
| Other white oaks | 326.9 | -- | 156.5 | 97.6 | 50.5 | 15.2 | 2.1 | 2.5 | 2.5 | -- | -- |
| Select red oaks | 179.8 | -- | 44.4 | 43.9 | 40.3 | 21.2 | 14.3 | 4.2 | 10.7 | .8 | -- |
| Red oaks | 2,168.8 | -- | 897.1 | 631.2 | 374.2 | 140.0 | 74.2 | 21.3 | 26.9 | 3.6 | .3 |
| Other red oaks | 115.8 | -- | 30.4 | 30.9 | 25.8 | 15.5 | 7.4 | 2.1 | 3.7 | -- | -- |
| Hickory A | 159.6 | -- | 89.1 | 42.0 | 12.8 | 9.9 | 3.8 | 2.0 | -- | -- | -- |
| Hickory B | 205.1 | -- | 95.5 | 60.0 | 37.2 | 8.1 | 2.0 | -- | 2.3 | -- | -- |
| Hard maple | 14.2 | -- | 5.5 | 2.8 | 2.8 | .2 | -- | 1.9 | 1.0 | -- | -- |
| Soft maple | 9.6 | -- | 1.1 | -- | 2.5 | 1.2 | -- | 2.8 | 2.0 | -- | -- |
| Sweetgum | 4.3 | -- | 3.4 | .9 | -- | -- | -- | -- | -- | -- | -- |
| Tupelo and blackgum | 52.7 | -- | 14.2 | 11.4 | 15.9 | 6.2 | -- | 1.7 | 3.3 | -- | -- |
| Ash | 21.6 | -- | 5.6 | 10.5 | .9 | 4.6 | -- | -- | -- | -- | -- |
| Sycamore | 69.4 | -- | 18.8 | 11.9 | 18.7 | 8.2 | 6.6 | 1.6 | 2.8 | .8 | -- |
| Cottonwood | 9.7 | -- | 1.0 | 1.2 | 4.2 | -- | 3.3 | -- | -- | -- | -- |
| River birch | 17.2 | -- | 3.9 | 6.5 | 1.2 | 1.4 | -- | 3.2 | 1.0 | -- | -- |
| Black walnut | 22.7 | -- | 12.5 | 5.1 | 1.1 | 3.1 | .9 | -- | -- | -- | -- |
| Black cherry | 4.9 | -- | 2.2 | 2.7 | -- | -- | -- | -- | -- | -- | -- |
| Elm | 37.3 | -- | 15.5 | 8.8 | 7.6 | 1.0 | 2.9 | 1.5 | -- | -- | -- |
| Other hardwoods | 23.1 | -- | 6.6 | 6.2 | 2.7 | 2.2 | 4.4 | -- | 1.0 | -- | -- |
| Total hardwoods | 4,447.8 | -- | 1,802.0 | 1,288.5 | 752.9 | 304.7 | 149.8 | 62.0 | 75.2 | 12.4 | .3 |
| All species | 5,286.5 | 364.0 | 2,085.0 | 1,392.1 | 808.2 | 326.7 | 160.6 | 62.0 | 75.2 | 12.4 | .3 |

1/ International 1/4-inch rule.

Table 27.--*Net volume of growing stock on commercial forest land, by species and forest type, Eastern Ozarks, Missouri, 1972*

(Million cubic feet)

| Species | All forest types | Shortleaf pine | Eastern redcedar | Eastern redcedar-hardwood | Shortleaf pine-oak | Post-blackjack oak | Black-scarlet oak | White oak | Oak-gum-cypress | Elm-ash-cottonwood | Maple-beech | Non-stocked |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Softwoods: | | | | | | | | | | | | |
| Shortleaf pine | 245.2 | 68.6 | -- | -- | 69.7 | 13.3 | 67.4 | 23.9 | -- | 1.1 | -- | 1.2 |
| Eastern redcedar | 8.6 | .5 | 2.1 | 1.0 | .3 | .3 | .5 | .6 | .1 | 1.1 | 1.6 | .5 |
| Total softwoods | 253.8 | 69.1 | 2.1 | 1.0 | 70.0 | 13.6 | 67.9 | 24.5 | .1 | 2.2 | 1.6 | 1.7 |
| Hardwoods: | | | | | | | | | | | | |
| Select white oaks | 500.4 | 6.3 | -- | .2 | 14.5 | 22.4 | 186.5 | 261.7 | .9 | 3.4 | 3.6 | .9 |
| Other white oaks | 179.3 | 1.3 | -- | .5 | 6.0 | 81.7 | 71.3 | 17.1 | -- | .2 | -- | 1.2 |
| Select red oaks | 66.4 | -- | -- | -- | 1.5 | 1.3 | 37.6 | 24.3 | -- | .9 | .8 | -- |
| Red oaks | 861.0 | 8.6 | -- | -- | 30.6 | 58.1 | 656.7 | 100.2 | .2 | 3.8 | .9 | 1.9 |
| Other red oaks | 42.0 | .4 | -- | -- | 1.6 | 15.3 | 9.7 | 2.7 | 11.5 | .8 | -- | -- |
| Hickory A | 84.5 | -- | -- | .4 | 2.0 | 10.6 | 42.7 | 25.7 | 1.0 | 1.1 | .8 | .2 |
| Hickory B | 108.6 | 1.3 | -- | .1 | 2.7 | 18.5 | 58.7 | 23.6 | -- | 1.1 | 2.0 | .6 |
| Hard maple | 5.8 | -- | .1 | -- | -- | -- | 1.8 | .6 | -- | .2 | 3.1 | -- |
| Soft maple | 3.8 | -- | -- | -- | .2 | .2 | .6 | .5 | -- | 2.3 | -- | -- |
| Sweetgum | 3.5 | -- | -- | -- | -- | .2 | .3 | .9 | .9 | .9 | .3 | -- |
| Tupelo and blackgum | 16.3 | .7 | -- | -- | .4 | .3 | 7.3 | 7.2 | -- | -- | .2 | .2 |
| Ash | 10.2 | -- | .1 | .2 | -- | .7 | 2.2 | 2.2 | -- | 3.2 | 1.0 | .6 |
| Sycamore | 23.4 | -- | -- | -- | -- | .7 | 2.5 | 1.8 | -- | 15.7 | 2.3 | .4 |
| Cottonwood | 2.2 | -- | -- | -- | -- | -- | -- | -- | -- | 2.2 | -- | -- |
| River birch | 5.3 | -- | -- | -- | -- | -- | -- | -- | -- | 5.0 | .3 | -- |
| Black walnut | 14.7 | -- | -- | .1 | .2 | .8 | 5.4 | 6.7 | -- | .7 | .8 | -- |
| Black cherry | 1.6 | -- | -- | -- | -- | -- | .6 | .6 | -- | .3 | .1 | -- |
| Elm | 22.1 | .5 | -- | .1 | .1 | 2.1 | 4.6 | 7.6 | .1 | 2.1 | 4.4 | .5 |
| Other hardwoods | 10.7 | -- | -- | -- | -- | .7 | .5 | 1.1 | -- | 6.4 | 2.0 | -- |
| Total hardwoods | 1,961.8 | 19.1 | .2 | 1.6 | 59.8 | 213.6 | 1,089.0 | 484.5 | 14.6 | 50.3 | 22.6 | 6.5 |
| All species | 2,215.6 | 88.2 | 2.3 | 2.6 | 129.8 | 227.2 | 1,156.9 | 509.0 | 14.7 | 52.5 | 24.2 | 8.2 |

Table 28.--*Net volume of sawtimber on commercial forest land, by species and forest type, Eastern Ozarks, Missouri, 1972*

(Million board feet)[1/]

| Species | All forest types | Shortleaf pine | Eastern redcedar | Eastern redcedar-hardwood | Shortleaf pine-oak | Post-blackjack oak | Black-scarlet oak | White oak | Oak-gum-cypress | Elm-ash-cottonwood | Maple-beech | Non-stocked |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Softwoods: | | | | | | | | | | | | |
| Shortleaf pine | 818.4 | 227.7 | -- | -- | 219.2 | 35.5 | 239.8 | 88.1 | -- | 4.7 | -- | 3.4 |
| Eastern redcedar | 20.3 | .7 | 7.4 | -- | .9 | -- | 1.8 | 1.7 | -- | 1.6 | 3.7 | 2.5 |
| Total softwoods | 838.7 | 228.4 | 7.4 | -- | 220.1 | 35.5 | 241.6 | 89.8 | -- | 6.3 | 3.7 | 5.9 |
| Hardwoods: | | | | | | | | | | | | |
| Select white oaks | 1,005.1 | 13.8 | -- | 1.0 | 31.4 | 34.8 | 381.5 | 517.8 | 1.2 | 11.6 | 8.5 | 3.5 |
| Other white oaks | 326.9 | 2.1 | -- | 2.2 | 7.5 | 148.5 | 131.1 | 34.3 | -- | 1.2 | -- | -- |
| Select red oaks | 179.8 | -- | -- | -- | 2.5 | 1.0 | 101.8 | 71.0 | -- | 2.5 | 1.0 | -- |
| Red oaks | 2,168.8 | 15.1 | -- | -- | 53.6 | 134.8 | 1,673.2 | 276.2 | -- | 10.0 | 2.3 | 3.6 |
| Other red oaks | 115.8 | -- | -- | -- | 2.3 | 27.4 | 17.2 | 10.4 | 55.5 | 3.0 | -- | -- |
| Hickory A | 159.6 | -- | -- | 2.0 | 6.2 | 19.4 | 76.8 | 48.1 | 3.2 | 3.2 | .7 | -- |
| Hickory B | 205.1 | -- | -- | .6 | 4.8 | 36.2 | 113.5 | 43.0 | -- | 1.9 | 4.1 | 1.0 |
| Hard maple | 14.2 | -- | -- | -- | -- | -- | 4.3 | -- | -- | -- | 9.9 | -- |
| Soft maple | 9.6 | -- | -- | -- | -- | -- | -- | -- | -- | 9.6 | -- | -- |
| Sweetgum | 4.3 | -- | -- | -- | -- | -- | 1.1 | .9 | 1.5 | .8 | -- | -- |
| Tupelo and blackgum | 52.7 | 1.4 | -- | -- | .8 | .7 | 26.5 | 21.4 | -- | -- | 1.1 | .8 |
| Ash | 21.6 | -- | .3 | -- | -- | 1.0 | 6.1 | 4.3 | -- | 9.9 | -- | -- |
| Sycamore | 69.4 | -- | -- | -- | -- | 2.9 | 4.5 | 3.1 | -- | 48.9 | 8.4 | 1.6 |
| Cottonwood | 9.7 | -- | -- | -- | -- | -- | -- | -- | -- | 9.7 | -- | -- |
| River birch | 17.2 | -- | -- | -- | -- | -- | -- | -- | -- | 16.2 | 1.0 | -- |
| Black walnut | 22.7 | -- | -- | -- | -- | -- | 10.9 | 9.2 | -- | -- | 2.6 | -- |
| Black cherry | 4.9 | -- | -- | -- | -- | -- | 1.8 | 2.1 | -- | 1.0 | -- | -- |
| Elm | 37.3 | -- | -- | -- | -- | 1.0 | 9.8 | 14.1 | -- | 2.7 | 8.1 | 1.6 |
| Other hardwoods | 23.1 | -- | -- | -- | -- | 1.6 | 2.0 | -- | -- | 15.0 | 4.5 | -- |
| Total hardwoods | 4,447.8 | 32.4 | .3 | 5.8 | 109.1 | 409.3 | 2,562.1 | 1,055.9 | 61.4 | 147.2 | 52.2 | 12.1 |
| All species | 5,286.5 | 260.8 | 7.7 | 5.8 | 329.2 | 444.8 | 2,803.7 | 1,145.7 | 61.4 | 153.5 | 55.9 | 18.0 |

1/ International 1/4-inch rule.

Table 29.--*Net volume of timber in cull trees on commercial forest land, by species and cull tree class, Eastern Ozarks, Missouri, 1972*

(Million cubic feet)

| Species | All cull trees | Rough trees | Short-log trees[1] | Rotten trees |
|---|---|---|---|---|
| Softwoods: | | | | |
| Shortleaf pine | 5.1 | 3.9 | .3 | .9 |
| Eastern redcedar | 1.9 | 1.6 | -- | .3 |
| Total softwoods | 7.0 | 5.5 | .3 | 1.2 |
| Hardwoods: | | | | |
| Select white oaks | 169.2 | 107.1 | 36.1 | 26.0 |
| Other white oaks | 120.3 | 84.0 | 19.0 | 17.3 |
| Select red oaks | 15.9 | 8.2 | 2.6 | 5.1 |
| Red oaks | 246.1 | 161.0 | 35.0 | 50.1 |
| Other red oaks | 48.5 | 34.1 | 4.8 | 9.6 |
| Hickory A | 30.1 | 21.5 | 5.1 | 3.5 |
| Hickory B | 45.9 | 32.7 | 7.3 | 5.9 |
| Hard maple | 10.2 | 8.1 | 1.4 | .7 |
| Soft maple | 3.6 | 2.8 | .2 | .6 |
| Sweetgum | 1.2 | .8 | .2 | .2 |
| Tupelo and blackgum | 10.7 | 5.6 | 1.9 | 3.2 |
| Ash | 9.3 | 7.0 | 1.5 | .8 |
| Sycamore | 4.2 | 2.2 | 1.0 | 1.0 |
| River birch | 1.2 | .6 | .5 | .1 |
| Basswood | .2 | -- | -- | .2 |
| Black walnut | 7.7 | 4.8 | 1.2 | 1.7 |
| Black cherry | .8 | .8 | -- | -- |
| Elm | 17.7 | 14.6 | 2.1 | 1.0 |
| Other hardwoods | 13.4 | 10.2 | .5 | 2.7 |
| Noncommercial species | 3.3 | 3.1 | -- | .2 |
| Total hardwoods | 759.5 | 509.2 | 120.4 | 129.9 |
| All species | 766.5 | 514.7 | 120.7 | 131.1 |

1/ Volumes are for trees 9.0 inches d.b.h. and larger for softwoods and 11.0 inches d.b.h. and larger for hardwoods. Volumes for rough and rotten trees are for trees 5.0 inches d.b.h. and larger.

Table 30.--*Net volume of short-log trees on commercial forest land, by species and diameter class, Eastern Ozarks, Missouri, 1972*

(Million board feet)[1/]

| Species | All classes | Diameter class (inches at breast height) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 9.0-10.9 | 11.0-12.9 | 13.0-14.9 | 15.0-16.9 | 17.0-18.9 | 19.0-20.9 | 21.0-22.9 | 23.0-28.9 | 29.0-38.9 | 39.0+ |
| Softwoods: | | | | | | | | | | | |
| Shortleaf pine | 2.5 | -- | 1.1 | -- | -- | 1.4 | -- | -- | -- | -- | -- |
| Total softwoods | 2.5 | -- | 1.1 | -- | -- | 1.4 | -- | -- | -- | -- | -- |
| Hardwoods: | | | | | | | | | | | |
| Select white oaks | 122.4 | -- | 51.8 | 37.3 | 16.0 | 8.6 | 3.2 | 2.3 | 2.7 | .5 | -- |
| Other white oaks | 69.4 | -- | 26.4 | 23.2 | 14.3 | 3.6 | .9 | .5 | .5 | -- | -- |
| Select red oaks | 9.5 | -- | 3.2 | 1.9 | 3.8 | -- | -- | -- | -- | .6 | -- |
| Red oaks | 119.8 | -- | 47.5 | 29.3 | 17.0 | 10.7 | 6.0 | 5.3 | 2.8 | 1.2 | -- |
| Other red oaks | 16.3 | -- | 9.1 | .7 | 2.7 | 3.3 | .5 | -- | -- | -- | -- |
| Hickory A | 17.2 | -- | 8.3 | 2.9 | 2.1 | .8 | 1.9 | -- | 1.2 | -- | -- |
| Hickory B | 23.5 | -- | 14.6 | 4.5 | 3.9 | .5 | -- | -- | -- | -- | -- |
| Hard maple | 3.4 | -- | .6 | 1.3 | 1.2 | -- | -- | .3 | -- | -- | -- |
| Soft maple | .7 | -- | .7 | -- | -- | -- | -- | -- | -- | -- | -- |
| Sweetgum | .6 | -- | -- | .6 | -- | -- | -- | -- | -- | -- | -- |
| Tupelo and blackgum | 6.2 | -- | 2.3 | 1.7 | .5 | 1.2 | -- | .5 | -- | -- | -- |
| Ash | 3.9 | -- | 2.3 | 1.3 | -- | .3 | -- | -- | -- | -- | -- |
| Sycamore | 1.6 | -- | .9 | -- | -- | -- | -- | -- | -- | -- | .7 |
| River birch | 1.3 | -- | .7 | -- | .6 | -- | -- | -- | -- | -- | -- |
| Black walnut | 3.5 | -- | 2.3 | .6 | .6 | -- | -- | -- | -- | -- | -- |
| Elm | 6.0 | -- | 1.6 | 1.7 | 2.7 | -- | -- | -- | -- | -- | -- |
| Other hardwoods | 1.6 | -- | .5 | .6 | .5 | -- | -- | -- | -- | -- | -- |
| Total hardwoods | 406.9 | -- | 172.8 | 107.6 | 65.9 | 29.0 | 12.5 | 8.9 | 7.2 | 2.3 | .7 |
| All species | 409.4 | -- | 173.9 | 107.6 | 65.9 | 30.4 | 12.5 | 8.9 | 7.2 | 2.3 | .7 |

1/ International 1/4-inch rule.

Table 31.--*Net volume of sawtimber on commercial forest land, by species and log grade class, Eastern Ozarks, Missouri, 1972*

(Million board feet)[1/]

| Species | All grades | Log Grade 1 | Log Grade 2 | Log Grade 3 | Tie and timber |
|---|---|---|---|---|---|
| Softwoods: | | | | | |
| Shortleaf pine | 818.4 | 122.4 | 115.5 | 580.5 | -- |
| Eastern redcedar | 20.3 | -- | 14.6 | 5.6 | .1 |
| Total softwoods | 838.7 | 122.4 | 130.1 | 586.1 | .1 |
| Hardwoods: | | | | | |
| Select white oaks | 1,005.1 | 74.2 | 214.6 | 469.6 | 246.7 |
| Other white oaks | 326.9 | 10.0 | 37.6 | 217.0 | 62.3 |
| Select red oaks | 179.8 | 18.7 | 51.4 | 86.4 | 23.3 |
| Red oaks | 2,168.8 | 77.4 | 491.8 | 1,050.3 | 549.3 |
| Other red oaks | 115.8 | 7.9 | 17.9 | 36.9 | 53.1 |
| Hickory A | 159.6 | -- | 26.0 | 85.7 | 47.9 |
| Hickory B | 205.1 | 2.1 | 36.1 | 106.3 | 60.6 |
| Hard maple | 14.2 | -- | 1.4 | 8.0 | 4.8 |
| Soft maple | 9.6 | -- | 6.7 | -- | 2.9 |
| Sweetgum | 4.3 | -- | -- | -- | 4.3 |
| Tupelo and blackgum | 52.7 | -- | 36.1 | -- | 16.6 |
| Ash | 21.6 | 1.1 | 9.9 | 10.6 | -- |
| Sycamore | 69.4 | 18.2 | 21.2 | 29.2 | .8 |
| Cottonwood | 9.7 | .7 | 1.6 | 4.8 | 2.6 |
| River birch | 17.2 | .7 | 10.4 | 2.1 | 4.0 |
| Black walnut | 22.7 | 1.5 | 6.4 | 14.8 | -- |
| Black cherry | 4.9 | -- | 3.0 | 1.9 | -- |
| Elm | 37.3 | .4 | 11.9 | 17.3 | 7.7 |
| Other hardwoods | 23.1 | 3.0 | 7.9 | 9.1 | 3.1 |
| Total hardwoods | 4,447.8 | 215.9 | 991.9 | 2,150.0 | 1,090.0 |
| All species | 5,286.5 | 338.3 | 1,122.0 | 2,736.1 | 1,090.1 |

1/ International 1/4-inch rule.

Table 32.--*Walnut volume on nonforest land, by diameter class and class of timber, Eastern Ozarks, Missouri, 1972*

| Diameter class (inches at breast height) | Growing stock trees | Sawtimber trees | Rough trees | Rotten trees |
|---|---|---|---|---|
| | Thousand cubic feet | Thousand board feet[1/] | Thousand cubic feet | Thousand cubic feet |
| 5.0-6.9 | -- | -- | 507 | -- |
| 7.0-8.9 | 618 | -- | 786 | -- |
| 9.0-10.9 | 669 | -- | 1,243 | 224 |
| 11.0-12.9 | -- | -- | 588 | 132 |
| 13.0-14.9 | 224 | 1,207 | 864 | -- |
| 15.0-16.9 | 937 | 5,788 | 702 | -- |
| 17.0-18.9 | -- | -- | -- | 73 |
| 19.0-20.9 | -- | -- | 403 | -- |
| 21.0-22.9 | -- | -- | 446 | -- |
| 23.0+ | -- | -- | 339 | 53 |
| All diameters | 2,448 | 6,995 | 5,878 | 482 |

1/ International 1/4-inch rule.

Table 33.--*Net annual growth of growing stock and sawtimber on commercial forest land, by species and county, Eastern Ozarks, Missouri, 1971*

| Species | All counties | | Bollinger | | Butler | | Carter | | Crawford | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Growing stock | Sawtimber | Growing stock | Sawtimber | Growing stock | Sawtimber | Growing stock | Sawtimber | Growing stock | Sawtimber |
| | Cords | Thousand bd.ft.1/ | Cords | Thousand bd.ft.1/ | Cords | Thousand bd.ft.1/ | Cords | Thousand bd.ft.1/ | Cords | Thousand bd.ft.1/ |
| Softwoods: | | | | | | | | | | |
| Shortleaf pine | 104,312 | 21,192 | 3,688 | 773 | 5,636 | 1,133 | 7,657 | 1,537 | 5,808 | 1,212 |
| Eastern redcedar | 3,830 | 241 | 240 | 17 | 454 | 28 | 237 | 7 | 287 | 25 |
| Total softwoods | 108,142 | 21,433 | 3,928 | 790 | 6,090 | 1,161 | 7,894 | 1,544 | 6,095 | 1,237 |
| Hardwoods: | | | | | | | | | | |
| Select white oaks | 171,794 | 17,738 | 8,431 | 936 | 6,409 | 696 | 10,331 | 1,062 | 13,858 | 1,435 |
| Other white oaks | 38,190 | 3,110 | 1,865 | 155 | 1,345 | 111 | 2,312 | 190 | 3,106 | 249 |
| Select red oaks | 28,936 | 4,875 | 1,476 | 265 | 1,144 | 201 | 1,731 | 285 | 2,365 | 405 |
| Red oaks | 446,328 | 62,598 | 21,251 | 3,203 | 16,334 | 2,222 | 27,027 | 3,769 | 35,930 | 5,128 |
| Other red oaks | 12,008 | 2,748 | 954 | 275 | 2,539 | 890 | 514 | 85 | 676 | 116 |
| Hickory A | 25,708 | 1,714 | 1,338 | 98 | 965 | 76 | 1,531 | 98 | 2,118 | 141 |
| Hickory B | 29,190 | 2,237 | 1,432 | 114 | 1,102 | 80 | 1,765 | 133 | 2,344 | 180 |
| Hard maple | 2,159 | 423 | 202 | 40 | 145 | 33 | 79 | 13 | 171 | 34 |
| Soft maple | 1,183 | 191 | 81 | 16 | 115 | 29 | 49 | 4 | 126 | 26 |
| Sweetgum | 919 | 90 | 71 | 8 | 189 | 23 | 38 | 3 | 58 | 5 |
| Tupelo and blackgum | 3,330 | 852 | 173 | 46 | 138 | 35 | 201 | 51 | 263 | 68 |
| Ash | 3,768 | 672 | 259 | 49 | 463 | 82 | 162 | 28 | 319 | 65 |
| Sycamore | 16,789 | 3,111 | 1,082 | 234 | 1,631 | 371 | 716 | 108 | 1,687 | 339 |
| Cottonwood | 418 | 122 | 35 | 10 | 63 | 19 | 12 | 4 | 51 | 15 |
| River birch | 2,804 | 719 | 197 | 52 | 370 | 99 | 25 | 5 | 404 | 104 |
| Black walnut | 3,329 | 404 | 182 | 23 | 150 | 16 | 188 | 23 | 275 | 34 |
| Black cherry | 394 | 113 | 21 | 6 | 18 | 5 | 22 | 6 | 34 | 10 |
| Elm | 3,069 | 546 | 171 | 42 | 268 | 62 | 159 | 24 | 237 | 47 |
| Other hardwoods | 4,493 | 269 | 264 | 22 | 369 | 40 | 217 | 9 | 397 | 27 |
| Total hardwoods | 794,809 | 102,532 | 39,485 | 5,594 | 33,757 | 5,090 | 47,079 | 5,900 | 64,419 | 8,428 |
| All species | 902,951 | 123,965 | 43,413 | 6,384 | 39,847 | 6,251 | 54,973 | 7,444 | 70,514 | 9,665 |

(Table 33 cont. on next page)

(Table 33 cont.)

| Species | Dent | | Iron | | Madison | | Oregon | | Reynolds | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Growing stock | Saw-timber | Growing stock | Saw-timber | Growing stock | Saw-timber | Growing stock | Ssw-timber | Growing stock | Saw-timber |
| | Cords | Thousand bd.ft.1/ | Cords | Thousand bd.ft.1/ | Cords | Thousand bd.ft.1/ | Cords | Thousand bd.ft.1/ | Cords | Thoussnd bd.ft.1/ |
| Softwoods: | | | | | | | | | | |
| Shortleaf pine | 6,599 | 1,380 | 6,813 | 1,288 | 8,036 | 1,483 | 7,898 | 1,648 | 9,652 | 1,994 |
| Eastern redcedar | 154 | 9 | 296 | 17 | 388 | 19 | 196 | 12 | 278 | 22 |
| Total softwoods | 6,753 | 1,389 | 7,109 | 1,305 | 8,424 | 1,502 | 8,094 | 1,660 | 9,930 | 2,016 |
| Hardwoods: | | | | | | | | | | |
| Select white oaks | 13,201 | 1,298 | 12,806 | 1,278 | 9,575 | 988 | 12,113 | 1,273 | 18,874 | 1,938 |
| Other white oaks | 3,035 | 243 | 2,853 | 226 | 2,051 | 161 | 2,855 | 233 | 4,115 | 332 |
| Select red oaks | 2,188 | 359 | 2,145 | 358 | 1,596 | 264 | 2,032 | 339 | 3,194 | 544 |
| Red oaks | 34,731 | 4,747 | 33,597 | 4,629 | 25,125 | 3,457 | 31,638 | 4,487 | 48,902 | 6,936 |
| Other red oaks | 641 | 105 | 605 | 98 | 477 | 77 | 628 | 105 | 975 | 181 |
| Hickory A | 1,937 | 119 | 1,874 | 122 | 1,413 | 98 | 1,850 | 118 | 2,825 | 190 |
| Hickory B | 2,255 | 174 | 2,132 | 164 | 1,597 | 120 | 2,115 | 163 | 3,155 | 243 |
| Hard maple | 115 | 22 | 132 | 25 | 191 | 42 | 109 | 20 | 236 | 47 |
| Soft maple | 59 | 5 | 66 | 8 | 73 | 13 | 75 | 10 | 113 | 16 |
| Sweetgum | 46 | 4 | 44 | 4 | 35 | 3 | 46 | 4 | 75 | 7 |
| Tupelo and blackgum | 240 | 61 | 235 | 60 | 192 | 49 | 237 | 61 | 362 | 93 |
| Ash | 203 | 33 | 215 | 36 | 205 | 38 | 223 | 43 | 353 | 62 |
| Sycamore | 930 | 143 | 908 | 158 | 957 | 196 | 1,084 | 186 | 1,526 | 278 |
| Cottonwood | 14 | 4 | 18 | 5 | 25 | 7 | 25 | 7 | 34 | 10 |
| River birch | 68 | 16 | 155 | 40 | 267 | 69 | 99 | 25 | 273 | 69 |
| Black walnut | 242 | 29 | 233 | 28 | 191 | 22 | 238 | 29 | 358 | 45 |
| Black cherry | 29 | 8 | 28 | 8 | 22 | 6 | 26 | 7 | 43 | 13 |
| Elm | 205 | 32 | 187 | 36 | 181 | 33 | 198 | 28 | 298 | 58 |
| Other hardwoods | 288 | 12 | 220 | 13 | 226 | 16 | 354 | 15 | 399 | 24 |
| Total hardwoods | 60,427 | 7,414 | 58,453 | 7,296 | 44,399 | 5,659 | 55,945 | 7,153 | 86,110 | 11,086 |
| All species | 67,180 | 8,803 | 65,562 | 8,601 | 52,823 | 7,161 | 64,039 | 8,813 | 96,040 | 13,102 |

(Table 33 cont. below)

(Table 33 cont.)

| Species | Ripley | | St. Francois | | Shannon | | Washington | | Wayne | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Growing stock | Saw-timber | Growing stock | Saw-timber | Growing stock | Saw-timber | Growing stock | Saw-timber | Growing stock | Saw-timber |
| | Cords | Thousand bd.ft.1/ | Cords | Thousand bd.ft.1/ | Cords | Thousand bd.ft.1/ | Cords | Thousand bd.ft.1/ | Cords | Thousand bd.ft.1/ |
| Softwoods: | | | | | | | | | | |
| Shortleaf pine | 8,567 | 1,753 | 2,626 | 513 | 11,452 | 2,352 | 9,458 | 2,006 | 10,422 | 2,120 |
| Eastern redcedar | 220 | 23 | 239 | 9 | 237 | 18 | 292 | 23 | 312 | 12 |
| Total softwoods | 8,787 | 1,776 | 2,865 | 522 | 11,689 | 2,370 | 9,750 | 2,029 | 10,734 | 2,132 |
| Hardwoods: | | | | | | | | | | |
| Select white oaks | 10,822 | 1,101 | 5,328 | 538 | 19,956 | 2,039 | 15,470 | 1,630 | 14,620 | 1,526 |
| Other white oaks | 2,387 | 196 | 1,284 | 108 | 4,611 | 376 | 3,284 | 272 | 3,087 | 258 |
| Select red oaks | 1,796 | 297 | 916 | 149 | 3,319 | 550 | 2,598 | 446 | 2,436 | 413 |
| Red oaks | 28,231 | 3,873 | 14,035 | 1,945 | 52,564 | 7,247 | 39,633 | 5,715 | 37,330 | 5,240 |
| Other red oaks | 740 | 161 | 298 | 49 | 975 | 162 | 730 | 121 | 1,256 | 323 |
| Hickory A | 1,593 | 103 | 834 | 54 | 2,939 | 183 | 2,342 | 165 | 2,149 | 149 |
| Hickory B | 1,881 | 139 | 942 | 73 | 3,408 | 265 | 2,631 | 203 | 2,431 | 186 |
| Hard maple | 138 | 28 | 72 | 14 | 154 | 27 | 257 | 48 | 158 | 30 |
| Soft maple | 93 | 18 | 52 | 11 | 97 | 9 | 98 | 14 | 86 | 12 |
| Sweetgum | 62 | 6 | 29 | 2 | 72 | 6 | 58 | 5 | 96 | 10 |
| Tupelo and blackgum | 218 | 55 | 96 | 25 | 372 | 95 | 314 | 80 | 289 | 73 |
| Ash | 266 | 50 | 147 | 26 | 324 | 55 | 302 | 51 | 327 | 54 |
| Sycamore | 1,437 | 265 | 822 | 147 | 1,447 | 223 | 1,336 | 246 | 1,226 | 217 |
| Cottonwood | 36 | 11 | 22 | 6 | 24 | 7 | 30 | 9 | 29 | 8 |
| River birch | 307 | 80 | 156 | 39 | 129 | 32 | 244 | 63 | 110 | 26 |
| Black walnut | 213 | 25 | 113 | 13 | 370 | 44 | 302 | 39 | 274 | 34 |
| Black cherry | 26 | 7 | 14 | 4 | 43 | 13 | 36 | 11 | 32 | 9 |
| Elm | 235 | 34 | 106 | 11 | 298 | 48 | 264 | 45 | 262 | 46 |
| Other hardwoods | 376 | 21 | 214 | 11 | 402 | 18 | 407 | 20 | 360 | 21 |
| Total hardwoods | 50,857 | 6,470 | 25,480 | 3,225 | 91,504 | 11,399 | 70,336 | 9,183 | 66,558 | 8,635 |
| All species | 59,644 | 8,246 | 28,345 | 3,747 | 103,193 | 13,769 | 80,086 | 11,212 | 77,292 | 10,767 |

1/ International 1/4-inch rule.

Table 34.--*Timber removals from growing stock and sawtimber on commercial forest land, by item and species group, Eastern Ozarks, Missouri, 1971*[1/]

| Item | Growing stock | | | | | Sawtimber | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | All species | Shortleaf pine | Other softwoods | Soft hardwoods | Hard hardwoods | All species | Shortleaf pine | Other softwoods | Soft hardwoods | Hard hardwoods |
| | Cords | | | | | Thousand board feet[2/] | | | | |
| Roundwood products: | | | | | | | | | | |
| Saw logs | 298,350 | 17,591 | 418 | 20,506 | 259,835 | 114,855 | 8,301 | 158 | 10,170 | 96,226 |
| Cooperage logs | 23,670 | -- | -- | 1,152 | 22,518 | 11,525 | -- | -- | 437 | 11,088 |
| Veneer logs | 304 | -- | -- | 152 | 152 | 112 | -- | -- | 55 | 57 |
| Pulpwood | 4,777 | 865 | -- | 797 | 3,115 | 1,441 | 94 | -- | 274 | 1,073 |
| Charcoal wood | 31,823 | -- | -- | 291 | 31,532 | 3,689 | -- | -- | 40 | 3,649 |
| Posts | 7,481 | 4,354 | 13 | -- | 3,114 | 919 | 205 | 1 | 12 | 701 |
| Fuelwood | 23,342 | -- | 63 | 1,823 | 21,456 | 4,385 | -- | 7 | 337 | 4,041 |
| Poles | 1,291 | 1,291 | -- | -- | -- | 173 | 173 | -- | -- | -- |
| Mine timbers | 709 | -- | -- | -- | 709 | 69 | -- | -- | -- | 69 |
| Handle bolts | 3,468 | -- | -- | 316 | 3,152 | 1,343 | -- | -- | 129 | 1,214 |
| Miscellaneous[3/] | 911 | -- | -- | -- | 911 | 392 | -- | -- | -- | 392 |
| All products | 396,126 | 24,101 | 494 | 25,037 | 346,494 | 138,903 | 8,773 | 166 | 11,454 | 118,510 |
| Logging residues | 96,899 | 1,975 | 10 | 3,156 | 91,758 | 11,644 | 222 | 1 | 382 | 11,039 |
| Other removals | 24,696 | -- | -- | 1,960 | 22,736 | 5,853 | -- | -- | 464 | 5,389 |
| Total removals | 517,721 | 26,076 | 504 | 30,153 | 460,988 | 156,400 | 8,995 | 167 | 12,300 | 134,938 |

1/ See glossary for timber removals from growing stock (page 5).
2/ International 1/4-inch rule.
3/ Includes shaving wood, heading bolts, etc.

Table 35.--*Timber removals from growing stock and sawtimber on commercial forest land, by species and county, Eastern Ozarks, Missouri, 1971*[1/]

| Species | All counties | | Bollinger | | Butler | | Carter | | Crawford | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Growing stock | Sawtimber | Growing stock | Sawtimber | Growing stock | Sawtimber | Growing stock | Sawtimber | Growing stock | Sawtimber |
| | Cords | Thousand bd. ft.[1/] | Cords | Thousand bd. ft.[1/] | Cords | Thousand bd. ft.[1/] | Cords | Thousand bd. ft.[1/] | Cords | Thousand bd. ft.[1/] |
| Softwoods: | | | | | | | | | | |
| Shortleaf pine | 26,076 | 8,995 | 292 | 122 | 1,594 | 458 | 3,026 | 1,055 | 21 | 8 |
| Cypress | 111 | 44 | 60 | 25 | 41 | 18 | -- | -- | -- | -- |
| Eastern redcedar | 393 | 123 | 20 | 2 | -- | -- | -- | -- | 20 | 2 |
| Total softwoods | 26,580 | 9,162 | 372 | 149 | 1,635 | 476 | 3,026 | 1,055 | 41 | 10 |
| Hardwoods: | | | | | | | | | | |
| Select white oaks | 100,021 | 29,390 | 6,822 | 2,142 | 3,925 | 1,084 | 7,696 | 2,356 | 7,010 | 2,021 |
| Other white oaks | 53,865 | 15,827 | 3,662 | 1,148 | 2,102 | 578 | 4,156 | 1,273 | 3,768 | 1,086 |
| Select red oaks | 18,272 | 5,186 | 953 | 286 | 666 | 196 | 1,147 | 331 | 1,139 | 297 |
| Red oaks | 221,881 | 62,976 | 11,577 | 3,473 | 8,091 | 2,386 | 13,933 | 4,024 | 13,826 | 3,601 |
| Other red oaks | 20,883 | 5,927 | 1,090 | 327 | 762 | 225 | 1,311 | 378 | 1,301 | 339 |
| Hickory A | 17,904 | 6,059 | 1,531 | 571 | 588 | 204 | 2,993 | 1,054 | 868 | 239 |
| Hickory B | 21,017 | 7,112 | 1,798 | 670 | 690 | 239 | 3,513 | 1,238 | 1,018 | 281 |
| Hard maple | 2,874 | 1,101 | 519 | 197 | 38 | 17 | -- | -- | 949 | 365 |
| Soft maple | 2,393 | 1,062 | 392 | 181 | 570 | 239 | -- | -- | 266 | 123 |
| Beech | 76 | 30 | 76 | 30 | -- | -- | -- | -- | -- | -- |
| Sweetgum | 5,153 | 2,098 | 1,152 | 534 | 2,392 | 891 | -- | 3 | -- | -- |
| Tupelo and blackgum | 4,559 | 1,965 | 412 | 189 | 153 | 73 | 150 | 49 | 162 | 61 |
| Ash | 1,899 | 651 | 532 | 201 | 278 | 82 | 89 | 24 | 101 | 22 |
| Sycamore | 9,101 | 4,064 | 1,253 | 573 | 620 | 259 | 139 | 42 | 2,278 | 1,052 |
| Cottonwood | 1,014 | 432 | 122 | 55 | 267 | 98 | 3 | 1 | 36 | 14 |
| River birch | 291 | 114 | 114 | 50 | 139 | 39 | -- | -- | 13 | 8 |
| Yellow-poplar | 152 | 70 | 127 | 60 | -- | -- | -- | -- | -- | -- |
| Basswood | 13 | 8 | -- | -- | -- | -- | -- | -- | 13 | 8 |
| Black walnut | 772 | 276 | -- | 1 | 76 | 28 | 76 | 28 | -- | -- |
| Black cherry | 140 | 64 | 25 | 13 | -- | -- | -- | 3 | -- | -- |
| Elm | 5,583 | 2,057 | 1,038 | 464 | 1,392 | 528 | 190 | 33 | 380 | 131 |
| Other hardwoods | 3,278 | 769 | 216 | 52 | 339 | 101 | 129 | 24 | 313 | 77 |
| Total hardwoods | 491,141 | 147,238 | 33,411 | 11,217 | 23,088 | 7,267 | 35,525 | 10,861 | 33,441 | 9,725 |
| All species | 517,721 | 156,400 | 33,783 | 11,366 | 24,723 | 7,743 | 38,551 | 11,916 | 33,482 | 9,735 |

(Table 35 cont. on next page)

(Table 35 cont.)

| Species | Dent | | Iron | | Madison | | Oregon | | Reynolds | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Growing stock | Sawtimber | Growing stock | Sawtimber | Growing stock | Sawtimber | Growing stock | Sawtimber | Growing stock | Sawtimber |
| | Cords | Thousand bd. ft.[1]/ | Cords | Thousand bd. ft.[1]/ | Cords | Thousand bd. ft.[1]/ | Cords | Thousand bd. ft.[1]/ | Cords | Thousand bd. ft.[1]/ |
| Softwoods: | | | | | | | | | | |
| Shortleaf pine | 1,614 | 394 | 847 | 317 | 3,944 | 1,423 | 1,836 | 457 | 3,248 | 1,295 |
| Cypress | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Eastern redcedar | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total softwoods | 1,614 | 394 | 847 | 317 | 3,944 | 1,423 | 1,836 | 457 | 3,248 | 1,295 |
| Hardwoods: | | | | | | | | | | |
| Select white oaks | 8,458 | 2,190 | 3,897 | 1,004 | 3,982 | 1,116 | 11,486 | 3,187 | 10,689 | 3,283 |
| Other white oaks | 4,572 | 1,184 | 2,090 | 541 | 2,134 | 601 | 6,226 | 1,724 | 5,732 | 1,765 |
| Select red oaks | 1,825 | 406 | 719 | 212 | 844 | 253 | 1,832 | 537 | 2,067 | 618 |
| Red oaks | 22,165 | 4,927 | 8,726 | 2,576 | 10,242 | 3,068 | 22,251 | 6,524 | 25,101 | 7,498 |
| Other red oaks | 2,086 | 464 | 821 | 242 | 964 | 289 | 2,094 | 614 | 2,362 | 706 |
| Hickory A | 868 | 186 | 1,386 | 491 | 914 | 326 | 1,019 | 336 | 2,207 | 788 |
| Hickory B | 1,018 | 219 | 1,627 | 576 | 1,073 | 383 | 1,196 | 394 | 2,590 | 926 |
| Hard maple | -- | -- | 51 | 20 | 646 | 244 | -- | -- | 190 | 73 |
| Soft maple | -- | -- | -- | -- | 13 | 4 | -- | -- | -- | -- |
| Beech | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Sweetgum | 13 | 4 | -- | 1 | 25 | 13 | 13 | 5 | 127 | 59 |
| Tupelo and blackgum | 183 | 77 | 246 | 100 | 592 | 271 | 208 | 87 | 1,066 | 474 |
| Ash | -- | 1 | 25 | 8 | 177 | 66 | 89 | 35 | 177 | 68 |
| Sycamore | 228 | 103 | 253 | 114 | 823 | 376 | 418 | 193 | 886 | 403 |
| Cottonwood | 3 | 1 | 4 | 2 | 81 | 37 | 94 | 45 | 7 | 2 |
| River birch | -- | -- | -- | 3 | -- | 2 | -- | -- | -- | -- |
| Yellow-poplar | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Basswood | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Black walnut | 76 | 28 | -- | -- | 13 | 5 | 76 | 28 | 101 | 34 |
| Black cherry | 13 | 5 | 13 | 4 | 13 | 3 | -- | -- | 76 | 34 |
| Elm | 165 | 36 | 203 | 58 | 190 | 74 | 253 | 88 | 354 | 146 |
| Other hardwoods | 235 | 55 | 209 | 41 | 168 | 45 | 208 | 42 | 267 | 68 |
| Total hardwoods | 41,908 | 9,886 | 20,270 | 5,993 | 22,894 | 7,176 | 47,463 | 13,839 | 53,999 | 16,945 |
| All species | 43,522 | 10,280 | 21,117 | 6,310 | 26,838 | 8,599 | 49,299 | 14,296 | 57,247 | 18,240 |

Table 35 cont. on next page)

(Table 35 cont.)

| Species | Ripley | | St. Francois | | Shannon | | Washington | | Wayne | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Growing stock | Sawtimber | Growing stock | Sawtimber | Growing stock | Sawtimber | Growing stock | Sawtimber | Growing stock | Sawtimber |
| | Cords | Thousand bd. ft.1/ | Cords | Thousand bd. ft.1/ | Cords | Thousand bd. ft.1/ | Cords | Thousand bd. ft.1/ | Cords | Thousand bd. ft.1/ |
| Softwoods: | | | | | | | | | | |
| Shortleaf pine | 918 | 349 | 111 | 47 | 4,974 | 1,585 | 1,039 | 437 | 2,612 | 1,048 |
| Cypress | 10 | 1 | -- | -- | -- | -- | -- | -- | -- | -- |
| Eastern redcedar | -- | -- | 10 | 2 | -- | -- | 343 | 117 | -- | -- |
| Total softwoods | 928 | 350 | 121 | 49 | 4,974 | 1,585 | 1,382 | 554 | 2,612 | 1,048 |
| Hardwoods: | | | | | | | | | | |
| Select white oaks | 6,882 | 2,002 | 6,014 | 2,180 | 8,109 | 2,337 | 6,333 | 1,983 | 8,718 | 2,505 |
| Other white oaks | 3,714 | 1,079 | 3,260 | 1,179 | 4,396 | 1,262 | 3,386 | 1,064 | 4,667 | 1,343 |
| Select red oaks | 1,664 | 499 | 96 | 27 | 2,620 | 718 | 490 | 144 | 2,210 | 662 |
| Red oaks | 20,206 | 6,064 | 1,162 | 324 | 31,816 | 8,714 | 5,950 | 1,753 | 26,835 | 8,044 |
| Other red oaks | 1,902 | 571 | 109 | 30 | 2,995 | 820 | 560 | 165 | 2,526 | 757 |
| Hickory A | 1,514 | 514 | 169 | 60 | 1,082 | 296 | 506 | 177 | 2,259 | 817 |
| Hickory B | 1,777 | 602 | 198 | 71 | 1,273 | 346 | 594 | 207 | 2,652 | 960 |
| Hard maple | -- | 1 | 51 | 21 | -- | -- | 215 | 79 | 215 | 84 |
| Soft maple | 1,000 | 443 | -- | -- | -- | -- | -- | -- | 152 | 72 |
| Beech | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Sweetgum | 962 | 401 | -- | -- | 13 | 4 | -- | -- | 456 | 183 |
| Tupelo and blackgum | 394 | 169 | 55 | 26 | 271 | 108 | 57 | 14 | 610 | 267 |
| Ash | 190 | 63 | -- | 2 | 76 | 25 | -- | -- | 165 | 54 |
| Sycamore | 861 | 358 | 278 | 130 | 89 | 36 | 203 | 90 | 772 | 335 |
| Cottonwood | 8 | 3 | 207 | 95 | 5 | 1 | 6 | 2 | 171 | 76 |
| River birch | -- | -- | -- | 2 | -- | -- | -- | -- | 25 | 10 |
| Yellow-poplar | -- | -- | -- | -- | -- | -- | -- | -- | 25 | 10 |
| Basswood | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Black walnut | 76 | 28 | 63 | 21 | 76 | 28 | 63 | 19 | 76 | 28 |
| Black cherry | -- | -- | -- | 2 | -- | -- | -- | -- | -- | -- |
| Elm | 709 | 264 | 76 | 19 | 101 | 31 | 165 | 39 | 367 | 146 |
| Other hardwoods | 333 | 80 | 150 | 36 | 209 | 39 | 268 | 60 | 234 | 49 |
| Total hardwoods | 42,192 | 13,141 | 11,888 | 4,225 | 53,131 | 14,765 | 18,796 | 5,796 | 53,135 | 16,402 |
| All species | 43,120 | 13,491 | 12,009 | 4,274 | 58,105 | 16,350 | 20,178 | 6,350 | 55,747 | 17,450 |

1/ International 1/4-inch rule.

**Table 36.**--*Annual mortality of growing stock and sawtimber on commercial forest land, by cause and softwoods and hardwoods, Eastern Ozarks, Missouri, 1971*

| Cause | Growing stock | | | Sawtimber | | |
|---|---|---|---|---|---|---|
| | All species | Softwoods | Hardwoods | All species | Softwoods | Hardwoods |
| | Thousand cubic feet | | | Thousand board feet[1/] | | |
| Disease | 1,626 | -- | 1,626 | 2,215 | -- | 2,215 |
| Fire | 161 | -- | 161 | 185 | -- | 185 |
| Weather | 311 | 76 | 235 | 1,395 | 439 | 956 |
| Suppression | 38 | 38 | -- | -- | -- | -- |
| Unknown and other | 902 | 140 | 762 | 338 | -- | 338 |
| Logging | 209 | 51 | 158 | 328 | -- | 328 |
| All causes | 3,247 | 305 | 2,942 | 4,461 | 439 | 4,022 |

1/ International 1/4-inch rule.

**Table 37.**--*Annual mortality of growing stock and sawtimber on commercial forest land, by species, Eastern Ozarks, Missouri, 1971*

| Species | Growing stock | Sawtimber |
|---|---|---|
| | Thousand cubic feet | Thousand board feet[1/] |
| Softwoods: | | |
| Shortleaf pine | 246 | 439 |
| Eastern redcedar | 59 | -- |
| Total softwoods | 305 | 439 |
| Hardwoods: | | |
| Select white oaks | 441 | 252 |
| Other white oaks | 446 | 391 |
| Red oaks | 1,128 | 2,297 |
| Other red oaks | 195 | 223 |
| Hickory A | 180 | 253 |
| Hickory B | 195 | 328 |
| Sycamore | 57 | -- |
| Black walnut | 71 | -- |
| Elm | 229 | 278 |
| Total hardwoods | 2,942 | 4,022 |
| All species | 3,247 | 4,461 |

1/ International 1/4-inch rule.

Table 38.--*Output of timber products by source of material and softwoods and hardwoods, Eastern Ozarks, Missouri, 1969*

| Product and species group | Standard unit[1/] | Total | | Roundwood products | | | | Plant byproducts | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Growing stock | | Nongrowing stock | | | |
| | | No. of units | M cu. ft. | No. of units | M cu. ft. | No. of units | M cu. ft. | No. of units | M cu. ft. |
| Saw logs: | M bd. ft. | | | | | | | | |
| Softwood | | 11,187 | 1,949 | 11,187 | 1,949 | -- | -- | -- | -- |
| Hardwood | | 180,179 | 31,850 | 125,050 | 22,147 | 55,129 | 9,703 | -- | -- |
| Total | | 191,366 | 33,799 | 136,237 | 24,096 | 55,129 | 9,703 | -- | -- |
| Veneer logs: | M bd. ft. | | | | | | | | |
| Softwood | | --- | -- | -- | -- | -- | -- | -- | -- |
| Hardwood | | 114 | 24 | 114 | 24 | -- | -- | -- | -- |
| Total | | 114 | 24 | 114 | 24 | -- | -- | -- | -- |
| Cooperage logs: | M bd. ft. | | | | | | | | |
| Softwood | | -- | -- | -- | -- | -- | -- | -- | -- |
| Hardwood | | 14,574 | 2,415 | 13,150 | 2,179 | 1,424 | 236 | -- | -- |
| Total | | 14,574 | 2,415 | 13,150 | 2,179 | 1,424 | 236 | -- | -- |
| Pulpwood: | Std. cords | | | | | | | | |
| Softwood | | -- | -- | -- | -- | -- | -- | -- | -- |
| Hardwood | | 14,178 | 1,120 | -- | -- | -- | -- | 14,178 | 1,120 |
| Total | | 14,178 | 1,120 | -- | -- | -- | -- | 14,178 | 1,120 |
| Poles: | M pieces | | | | | | | | |
| Softwood | | 43,200 | 128 | 43,200 | 128 | -- | -- | -- | -- |
| Hardwood | | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | | 43,200 | 128 | 43,200 | 128 | -- | -- | -- | -- |
| Mine timbers: | M cu. ft. | | | | | | | | |
| Softwood | | -- | -- | -- | -- | -- | -- | -- | -- |
| Hardwood | | 73 | 73 | 56 | 56 | 17 | 17 | -- | -- |
| Total | | 73 | 73 | 56 | 56 | 17 | 17 | -- | -- |
| Posts: | M pieces | | | | | | | | |
| Softwood | | 832 | 635 | 567 | 433 | 265 | 202 | -- | -- |
| Hardwood | | 624 | 343 | 445 | 246 | 179 | 97 | -- | -- |
| Total | | 1,456 | 978 | 1,012 | 679 | 444 | 299 | -- | -- |
| Charcoal wood: | Std. cords | | | | | | | | |
| Softwood | | 629 | 44 | -- | -- | -- | -- | 629 | 44 |
| Hardwood | | 137,002 | 9,578 | 35,971 | 2,514 | 76,831 | 5,370 | 24,200 | 1,694 |
| Total | | 137,631 | 9,622 | 35,971 | 2,514 | 76,831 | 5,370 | 24,829 | 1,738 |
| Other:[2/] | M cu. ft. | | | | | | | | |
| Softwood | | 4 | 4 | -- | -- | -- | -- | 4 | 4 |
| Hardwood | | 496 | 496 | 346 | 346 | 30 | 30 | 120 | 120 |
| Total | | 500 | 500 | 346 | 346 | 30 | 30 | 124 | 124 |
| Fuelwood: | Std. cords | | | | | | | | |
| Softwood | | 287 | 22 | 73 | 6 | 106 | 9 | 108 | 7 |
| Hardwood | | 98,944 | 6,440 | 28,248 | 1,839 | 60,973 | 3,969 | 9,723 | 632 |
| Total | | 99,231 | 6,462 | 28,321 | 1,845 | 61,079 | 3,978 | 9,831 | 639 |
| All products: | M cu. ft. | | | | | | | | |
| Softwood | | 2,782 | 2,782 | 2,516 | 2,516 | 211 | 211 | 55 | 55 |
| Hardwood | | 52,339 | 52,339 | 29,351 | 29,351 | 19,422 | 19,422 | 3,566 | 3,566 |
| Total | | 55,121 | 55,121 | 31,867 | 31,867 | 19,633 | 19,633 | 3,621 | 3,621 |

1/ M (meaning thousand) board feet by International 1/4-inch rule. Cords are on a roughwood, 128-cubic-foot basis.

2/ Other (industrial production) includes handle bolts, shaving bolts, heading stock, etc.

Table 39.--*Forest products harvested by ownership class and product, Eastern Ozarks, Missouri, 1969*

| Ownership class | Saw logs | Cooperage logs | Veneer logs | Pulp-wood | Charcoal wood | Posts | Fuel-wood | Poles | Mine timbers | Handle bolts | Miscellaneous |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | M bd.ft.[1] | M bd.ft.[1] | M bd.ft.[1] | Cords[2] | Cords[2] | M pieces | Cords[2] | Pieces | M cu.ft. | M bd.ft.[1] | M cu.ft. |
| Federal: | | | | | | | | | | | |
| National Forest: | | | | | | | | | | | |
| Softwoods | 5,079 | -- | -- | -- | -- | 411 | -- | 400 | -- | -- | -- |
| Hardwoods | 20,982 | 16 | 11 | -- | 1,852 | -- | 5,210 | -- | -- | -- | -- |
| Corps of Engineers: | | | | | | | | | | | |
| Hardwoods | 14 | 4 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 26,075 | 20 | 11 | -- | 1,852 | 411 | 5,210 | 400 | -- | -- | -- |
| State: | | | | | | | | | | | |
| Softwoods | 126 | -- | -- | -- | -- | 14 | -- | -- | -- | -- | -- |
| Hardwoods | 1,457 | 69 | -- | -- | 481 | -- | 8 | -- | -- | 100 | -- |
| Total | 1,583 | 69 | -- | -- | 481 | 14 | 8 | -- | -- | 100 | -- |
| Private: | | | | | | | | | | | |
| Industrial: | | | | | | | | | | | |
| Softwoods | 228 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Hardwoods | 9,721 | 135 | -- | -- | 15,670 | -- | -- | -- | -- | -- | -- |
| Farm and other: | | | | | | | | | | | |
| Softwoods | 5,754 | -- | -- | -- | -- | 407 | 179 | 42,800 | -- | -- | -- |
| Hardwoods | 148,005 | 14,350 | 103 | -- | 94,799 | 624 | 84,003 | -- | 73 | 1,821 | 72 |
| Total | 163,708 | 14,485 | 103 | -- | 110,469 | 1,031 | 84,182 | 42,800 | 73 | 1,821 | 72 |
| All owners: | | | | | | | | | | | |
| Softwoods | 11,187 | -- | -- | -- | -- | 832 | 179 | 43,200 | -- | -- | -- |
| Hardwoods | 180,179 | 14,574 | 114 | -- | 112,802 | 624 | 89,221 | -- | 73 | 1,921 | 72 |
| Total | 191,366 | 14,574 | 114 | -- | 112,802 | 1,456 | 89,400 | 43,200 | 73 | 1,921 | 72 |

1/ International 1/4-inch rule.
2/ Standard cords, rough wood basis.

Table 40.--*Volume of primary plant residue, by kind of material and type of use, Eastern Ozarks, Missouri, 1969*

(Thousand cubic feet)

| Source industry and kind of residue | Volume by type of use | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Fiber[1] | | Charcoal | | Fuel[2] | | Other[3] | | Not used[4] | |
| | Hard-woods | Soft-woods | Hard-woods | Soft-woods | Hard-woods | Soft-woods | Hard-woods | Soft-woods | Hard-woods | Soft-woods |
| Lumber: | | | | | | | | | | |
| Coarse | 971 | 44 | 1,532 | 6 | 392 | 1 | 5 | 323 | 3,755 | |
| Fine | 86 | -- | -- | 1 | 13 | 3 | 97 | 273 | 4,404 | |
| Total | 1,057 | 44 | 1,532 | 7 | 405 | 4 | 102 | 596 | 8,159 | |
| All other: | | | | | | | | | | |
| Coarse | 63 | -- | 120 | -- | 144 | -- | -- | -- | 70 | |
| Fine | -- | -- | 42 | -- | 83 | -- | 18 | -- | 445 | |
| Total | 63 | -- | 162 | -- | 227 | -- | 18 | -- | 515 | |
| All industries: | | | | | | | | | | |
| Coarse | 1,034 | 44 | 1,652 | 6 | 536 | 1 | 5 | 323 | 3,825 | |
| Fine | 86 | -- | 42 | 1 | 96 | 3 | 115 | 273 | 4,849 | |
| Total | 1,120 | 44 | 1,694 | 7 | 632 | 4 | 120 | 596 | 8,674 | |

1/ For manufacture of pulp, hardboard, or roofing felt.
2/ All residue used for industrial or domestic fuel whether sold or given away.
3/ Includes uses such as livestock bedding, mulch, small dimension, and specialty items.
4/ Includes residue burned as waste.

Table 41.--*Timber products output from roundwood, by species and product, Eastern Ozarks, Missouri, 1969*

| Species | Saw logs | | Veneer logs | | Cooperage logs | | Charcoal wood | | Other products 3/ | All products |
|---|---|---|---|---|---|---|---|---|---|---|
| | M bd. ft. 1/ | M cu. ft. | M bd. ft. 1/ | M cu. ft. | M bd. ft. 1/ | M cu. ft. | Cords 2/ | M cu. ft. | M cu. ft. | M cu. ft. |
| Softwoods: | | | | | | | | | | |
| Shortleaf pine | 10,535 | 1,829 | 0 | 0 | 0 | 0 | 0 | 0 | 762 | 2,591 |
| Cypress | 52 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 10 |
| Eastern redcedar | 152 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 48 |
| Other softwoods | 448 | 78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 |
| Total softwoods | 11,187 | 1,949 | 0 | 0 | 0 | 0 | 0 | 0 | 778 | 2,727 |
| Hardwoods: | | | | | | | | | | |
| White oaks | 37,858 | 6,757 | 0 | 0 | 13,478 | 2,222 | 21,464 | 1,505 | 4,242 | 14,726 |
| Red oaks | 46,346 | 8,269 | 0 | 0 | 0 | 0 | 6,822 | 474 | 387 | 9,130 |
| Black oak | 71,780 | 12,812 | 0 | 0 | 0 | 0 | 69,237 | 4,846 | 821 | 18,479 |
| Hickory | 10,204 | 1,745 | 56 | 12 | 0 | 0 | 13,867 | 968 | 552 | 3,277 |
| Hard maple | 1,042 | 177 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 177 |
| Soft maple | 1,124 | 179 | 0 | 0 | 47 | 9 | 0 | 0 | 4 | 192 |
| Beech | 28 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Sweetgum | 1,853 | 295 | 6 | 1 | 571 | 98 | 0 | 0 | 4 | 398 |
| Blackgum | 2,018 | 316 | 0 | 0 | 0 | 0 | 162 | 9 | 1 | 326 |
| Ash | 487 | 80 | 0 | 0 | 47 | 9 | 235 | 16 | 25 | 130 |
| Cottonwood | 360 | 55 | 0 | 0 | 47 | 9 | 0 | 0 | 0 | 64 |
| Basswood | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Yellow-poplar | 79 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| Black walnut | 587 | 129 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 129 |
| Black cherry | 72 | 11 | 0 | 0 | 0 | 0 | 20 | 1 | 0 | 12 |
| Elm | 1,799 | 286 | 0 | 0 | 189 | 33 | 684 | 46 | 307 | 672 |
| Birch | 91 | 13 | 0 | 0 | 47 | 9 | 0 | 0 | 0 | 22 |
| Sycamore | 4,358 | 696 | 49 | 11 | 148 | 26 | 300 | 19 | 3 | 755 |
| Other hardwoods | 84 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 254 | 267 |
| Total hardwoods | 180,179 | 31,850 | 114 | 24 | 14,574 | 2,415 | 112,802 | 7,884 | 6,600 | 48,773 |
| All species | 191,366 | 33,799 | 114 | 24 | 14,574 | 2,415 | 112,802 | 7,884 | 7,378 | 51,500 |

1/ International 1/4-inch rule.
2/ Standard cords, rough wood basis.
3/ Includes posts, fuelwood, shaving bolts, heading bolts, etc.

**Table 42.**--*Average annual allowable cut for 1972-1981 from harvest cuttings and thinnings, on commercial forest land, by species and kind of material, Eastern Ozarks, Missouri*

| Species | Growing stock[1] | | | Sawtimber[1] | Rough and rotten trees | | |
|---|---|---|---|---|---|---|---|
| | Total | Poletimber trees | Sawtimber trees | Total | Total | Short-log trees | Other |
| | Cords | | | Thousand board feet[2] | Cords | | |
| Softwoods: | | | | | | | |
| Shortleaf pine | 76,076 | 21,595 | 54,481 | 23,015 | 2,911 | 51 | 2,860 |
| Eastern redcedar | 1,924 | 1,342 | 582 | 230 | 684 | -- | 684 |
| Total softwoods | 78,000 | 22,937 | 55,063 | 23,245 | 3,595 | 51 | 3,544 |
| Hardwoods: | | | | | | | |
| Select white oaks | 164,519 | 71,380 | 93,139 | 35,540 | 59,797 | 13,936 | 45,861 |
| Other white oaks | 56,620 | 23,911 | 32,709 | 12,360 | 37,759 | 6,810 | 30,949 |
| Select red oaks | 24,025 | 5,266 | 18,759 | 7,265 | 7,481 | 1,810 | 5,671 |
| Red oaks | 285,177 | 94,823 | 190,354 | 75,068 | 95,532 | 15,836 | 79,696 |
| Other red oaks | 10,582 | 2,481 | 8,101 | 3,466 | 9,671 | 1,127 | 8,544 |
| Hickory A | 21,215 | 9,759 | 11,456 | 4,011 | 6,975 | 949 | 6,026 |
| Hickory B | 35,785 | 17,836 | 17,949 | 7,003 | 15,797 | 2,886 | 12,911 |
| Hard maple | 2,278 | 962 | 1,316 | 518 | 5,532 | 886 | 4,646 |
| Soft maple | 1,013 | 759 | 254 | 97 | 1,962 | 266 | 1,696 |
| Sweetgum | 962 | 506 | 456 | 174 | 734 | 215 | 519 |
| Tupelo and blackgum | 5,608 | 1,253 | 4,355 | 1,662 | 4,443 | 886 | 3,557 |
| Ash | 4,557 | 2,278 | 2,279 | 828 | 4,329 | 937 | 3,392 |
| Sycamore | 9,316 | 2,519 | 6,797 | 2,107 | 1,722 | 342 | 1,380 |
| River birch | 1,975 | 646 | 1,329 | 504 | 1,139 | 595 | 544 |
| Basswood | -- | -- | -- | -- | 177 | -- | 177 |
| Black walnut | 5,304 | 2,646 | 2,658 | 852 | 2,139 | 709 | 1,430 |
| Black cherry | 633 | -- | 633 | 252 | 532 | -- | 532 |
| Elm | 6,608 | 2,620 | 3,988 | 1,425 | 5,469 | 1,051 | 4,418 |
| Other hardwoods | 2,494 | 1,317 | 1,177 | 391 | 7,468 | 177 | 7,291 |
| Noncommercial species | -- | -- | -- | -- | 228 | -- | 228 |
| Total hardwoods | 638,671 | 240,962 | 397,709 | 153,523 | 268,886 | 49,418 | 219,468 |
| All species | 716,671 | 263,899 | 452,772 | 176,768 | 272,481 | 49,469 | 223,012 |

1/ Cuttings of less than 3 cords per acre, or the equivalent in board feet, are excluded.
2/ International 1/4-inch rule.

Table 43.--*Average annual allowable cut of growing stock for 1972-1981 from harvest cuttings and thinnings, on commercial forest land, by species and forest type, Eastern Ozarks, Missouri*[1/]

(Thousand cubic feet)

| Species | All forest types | Shortleaf pine | Eastern redcedar | Eastern redcedar-hardwood | Shortleaf pine-oak | Post-blackjack oak | Black-scarlet oak | White oak | Oak-gum-cypress | Elm-ash-cottonwood | Maple-beech |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Softwoods: | | | | | | | | | | | |
| Shortleaf pine | 6,010 | 2,194 | -- | -- | 1,934 | 300 | 1,083 | 407 | -- | 92 | -- |
| Eastern redcedar | 152 | 33 | 26 | 27 | 28 | -- | -- | -- | -- | 10 | 28 |
| Total softwoods | 6,162 | 2,227 | 26 | 27 | 1,962 | 300 | 1,083 | 407 | -- | 102 | 28 |
| Hardwoods: | | | | | | | | | | | |
| Select white oaks | 12,997 | 224 | -- | -- | 455 | 475 | 5,322 | 6,230 | -- | 192 | 99 |
| Other white oaks | 4,473 | 34 | -- | 43 | 198 | 2,528 | 1,303 | 356 | -- | 11 | -- |
| Select red oaks | 1,898 | -- | -- | -- | -- | -- | 1,377 | 493 | -- | 28 | -- |
| Red oaks | 22,529 | 378 | -- | -- | 948 | 1,520 | 16,968 | 2,421 | -- | 242 | 52 |
| Other red oaks | 836 | 15 | -- | -- | 23 | 272 | 81 | 44 | 401 | -- | -- |
| Hickory A | 1,676 | -- | -- | -- | 56 | 243 | 726 | 551 | 16 | 84 | -- |
| Hickory B | 2,827 | 45 | -- | -- | 92 | 570 | 1,562 | 496 | -- | 18 | 44 |
| Hard maple | 180 | -- | 4 | -- | -- | -- | 67 | -- | -- | -- | 109 |
| Soft maple | 80 | -- | -- | -- | 15 | -- | -- | 35 | -- | 30 | -- |
| Sweetgum | 76 | -- | -- | -- | -- | -- | 23 | -- | 33 | 7 | 13 |
| Tupelo and blackgum | 443 | 39 | -- | -- | -- | 16 | 136 | 228 | -- | -- | 24 |
| Ash | 360 | -- | 4 | 20 | -- | 49 | 80 | 72 | -- | 97 | 38 |
| Sycamore | 736 | -- | -- | -- | -- | 26 | 105 | -- | -- | 426 | 179 |
| River birch | 156 | -- | -- | -- | -- | -- | -- | -- | -- | 126 | 30 |
| Black walnut | 419 | -- | -- | -- | 7 | -- | 145 | 175 | -- | 51 | 41 |
| Black cherry | 50 | -- | -- | -- | -- | -- | 35 | 7 | -- | 8 | -- |
| Elm | 522 | 20 | -- | -- | 15 | 19 | 118 | 140 | -- | 44 | 166 |
| Other hardwoods | 197 | -- | -- | -- | -- | 12 | -- | 13 | -- | 57 | 115 |
| Total hardwoods | 50,455 | 755 | 8 | 63 | 1,809 | 5,730 | 28,048 | 11,261 | 450 | 1,421 | 910 |
| All species | 56,617 | 2,982 | 34 | 90 | 3,771 | 6,030 | 29,131 | 11,668 | 450 | 1,523 | 938 |

1/ Cuttings of less than 240 cubic feet per acre are excluded.

**Table 44.**--*Average annual allowable cut of growing stock for 1972-1981 from harvest cuttings and thinnings, on commercial forest land, by species and stand-volume class, Eastern Ozarks, Missouri* 1/

**(Thousand cubic feet)**

| Species | All classes | Stand-volume class (cubic feet per acre) | | | | |
|---|---|---|---|---|---|---|
| | | 240-399 | 400-799 | 800-1,199 | 1,200-1,599 | 1,600+ |
| Softwoods: | | | | | | |
| Shortleaf pine | 6,010 | 1,044 | 2,382 | 1,918 | 97 | 569 |
| Eastern redcedar | 152 | 54 | 70 | 28 | -- | -- |
| Total softwoods | 6,162 | 1,098 | 2,452 | 1,946 | 97 | 569 |
| Hardwoods: | | | | | | |
| Select white oaks | 12,997 | 1,326 | 4,039 | 5,063 | 1,679 | 890 |
| Other white oaks | 4,473 | 854 | 2,340 | 1,114 | 165 | -- |
| Select red oaks | 1,898 | 145 | 551 | 923 | 279 | -- |
| Red oaks | 22,529 | 1,855 | 7,125 | 9,234 | 2,967 | 1,348 |
| Other red oaks | 836 | 94 | 243 | 98 | 401 | -- |
| Hickory A | 1,676 | 91 | 509 | 962 | 114 | -- |
| Hickory B | 2,827 | 229 | 917 | 930 | 600 | 151 |
| Hard maple | 180 | 4 | 30 | 99 | 47 | -- |
| Soft maple | 80 | -- | 62 | 18 | -- | -- |
| Sweetgum | 76 | -- | 20 | -- | 56 | -- |
| Tupelo and blackgum | 443 | 43 | 136 | 187 | 56 | 21 |
| Ash | 360 | 20 | 178 | 101 | 14 | 47 |
| Sycamore | 736 | 11 | 340 | 345 | 40 | -- |
| River birch | 156 | -- | 126 | 30 | -- | -- |
| Black walnut | 419 | 16 | 126 | 149 | 128 | -- |
| Black cherry | 50 | -- | 15 | -- | 35 | -- |
| Elm | 522 | 70 | 112 | 201 | 139 | -- |
| Other hardwoods | 197 | 18 | 96 | 13 | 70 | -- |
| Total hardwoods | 50,455 | 4,776 | 16,965 | 19,467 | 6,790 | 2,457 |
| All species | 56,617 | 5,874 | 19,417 | 21,413 | 6,887 | 3,026 |

1/ Cuttings of less than 240 cubic feet per acre are excluded.

Table 45.--*Average annual allowable cut by harvest cuttings of growing stock for 1972-1981 on commercial forest land, by species and stand-volume class, Eastern Ozarks, Missouri*

(Thousand cubic feet)

| Species | All classes | Stand-volume class[1] (cubic feet per acre) | | | | |
|---|---|---|---|---|---|---|
| | | 240-399 | 400-799 | 800-1,199 | 1,200-1,599 | 1,600+ |
| Softwoods: | | | | | | |
| Shortleaf pine | 4,434 | 476 | 1,828 | 1,478 | 83 | 569 |
| Eastern redcedar | 142 | 54 | 60 | 28 | -- | -- |
| Total softwoods | 4,576 | 530 | 1,888 | 1,506 | 83 | 569 |
| Hardwoods: | | | | | | |
| Select white oaks | 11,490 | 885 | 3,321 | 4,844 | 1,550 | 890 |
| Other white oaks | 4,137 | 749 | 2,136 | 1,101 | 151 | -- |
| Select red oaks | 1,741 | 92 | 447 | 923 | 279 | -- |
| Red oaks | 17,529 | 650 | 4,809 | 8,081 | 2,641 | 1,348 |
| Other red oaks | 819 | 87 | 233 | 98 | 401 | -- |
| Hickory A | 1,520 | 66 | 443 | 897 | 114 | -- |
| Hickory B | 2,588 | 146 | 761 | 930 | 600 | 151 |
| Hard maple | 174 | 4 | 24 | 99 | 47 | -- |
| Soft maple | 50 | -- | 32 | 18 | -- | -- |
| Sweetgum | 56 | -- | -- | -- | 56 | -- |
| Tupelo and blackgum | 406 | 31 | 111 | 187 | 56 | 21 |
| Ash | 307 | 20 | 125 | 101 | 14 | 47 |
| Sycamore | 518 | 11 | 122 | 345 | 40 | -- |
| River birch | 30 | -- | -- | 30 | -- | -- |
| Black walnut | 374 | -- | 97 | 149 | 128 | -- |
| Black cherry | 35 | -- | -- | -- | 35 | -- |
| Elm | 424 | 49 | 35 | 201 | 139 | -- |
| Other hardwoods | 113 | 18 | 12 | 13 | 70 | -- |
| Total hardwoods | 42,311 | 2,808 | 12,708 | 18,017 | 6,321 | 2,457 |
| All species | 46,887 | 3,338 | 14,596 | 19,523 | 6,404 | 3,026 |

1/ Cuttings of less than 240 cubic feet per acre are excluded.

Table 46.--*Average annual allowable cut by thinnings of growing stock for 1972-1981 on commercial forest land, by species and stand-volume class, Eastern Ozarks, Missouri*

(Thousand cubic feet)

| Species | All classes | Stand-volume class[1/] (cubic feet per acre) | | | |
|---|---|---|---|---|---|
| | | 240-399 | 400-799 | 800-1,199 | 1,200-1,599 |
| Softwoods: | | | | | |
| Shortleaf pine | 1,576 | 568 | 554 | 440 | 14 |
| Eastern redcedar | 10 | -- | 10 | -- | -- |
| Total softwoods | 1,586 | 568 | 564 | 440 | 14 |
| Hardwoods: | | | | | |
| Select white oaks | 1,507 | 441 | 718 | 219 | 129 |
| Other white oaks | 336 | 105 | 204 | 13 | 14 |
| Select red oaks | 157 | 53 | 104 | -- | -- |
| Red oaks | 5,000 | 1,205 | 2,316 | 1,153 | 326 |
| Other red oaks | 17 | 7 | 10 | -- | -- |
| Hickory A | 156 | 25 | 66 | 65 | -- |
| Hickory B | 239 | 83 | 156 | -- | -- |
| Hard maple | 6 | -- | 6 | -- | -- |
| Soft maple | 30 | -- | 30 | -- | -- |
| Sweetgum | 20 | -- | 20 | -- | -- |
| Tupelo and blackgum | 37 | 12 | 25 | -- | -- |
| Ash | 53 | -- | 53 | -- | -- |
| Sycamore | 218 | -- | 218 | -- | -- |
| River birch | 126 | -- | 126 | -- | -- |
| Black walnut | 45 | 16 | 29 | -- | -- |
| Black cherry | 15 | -- | 15 | -- | -- |
| Elm | 98 | 21 | 77 | -- | -- |
| Other hardwoods | 84 | -- | 84 | -- | -- |
| Total hardwoods | 8,144 | 1,968 | 4,257 | 1,450 | 469 |
| All species | 9,730 | 2,536 | 4,821 | 1,890 | 483 |

1/ Cuttings of less than 240 cubic feet per acre are excluded.

Table 47.--*Average annual allowable cut of sawtimber*[1/] *for 1972-1981 from harvest cuttings and thinnings, on commercial forest land, by species and forest type, Eastern Ozarks, Missouri*

(Thousand board feet)[2/]

| Species | All forest types | Shortleaf pine | Eastern redcedar | Eastern redcedar-hardwood | Shortleaf pine-oak | Post-blackjack oak | Black-scarlet oak | White oak | Oak-gum-cypress | Elm-ash-cottonwood | Maple-beech |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Softwoods: | | | | | | | | | | | |
| Shortleaf pine | 23,585 | 8,333 | -- | -- | 7,925 | 899 | 4,034 | 2,012 | -- | 382 | -- |
| Eastern redcedar | 426 | 58 | 234 | -- | 79 | -- | 1 | -- | -- | 54 | -- |
| Total softwoods | 24,011 | 8,391 | 234 | -- | 8,004 | 899 | 4,035 | 2,012 | -- | 436 | -- |
| Hardwoods: | | | | | | | | | | | |
| Select white oaks | 36,173 | 347 | -- | 22 | 1,470 | 1,334 | 14,133 | 17,813 | 46 | 640 | 368 |
| Other white oaks | 12,724 | 27 | -- | 188 | 463 | 7,386 | 3,629 | 971 | -- | 60 | -- |
| Select red oaks | 7,294 | -- | -- | -- | -- | -- | 5,389 | 1,804 | -- | 101 | -- |
| Red oaks | 76,344 | 1,072 | -- | -- | 2,286 | 4,698 | 57,356 | 10,261 | -- | 591 | 80 |
| Other red oaks | 3,545 | -- | -- | -- | 128 | 787 | 416 | 199 | 2,015 | -- | -- |
| Hickory A | 4,291 | -- | -- | 44 | 265 | 640 | 1,548 | 1,489 | 106 | 199 | -- |
| Hickory B | 7,220 | -- | -- | 6 | 264 | 1,279 | 4,080 | 1,499 | -- | -- | 92 |
| Hard maple | 518 | -- | -- | -- | -- | -- | 157 | -- | -- | -- | 361 |
| Soft maple | 97 | -- | -- | -- | -- | -- | -- | -- | -- | 97 | -- |
| Sweetgum | 174 | -- | -- | -- | -- | -- | 114 | -- | 52 | 8 | -- |
| Tupelo and blackgum | 1,687 | 60 | -- | -- | -- | 77 | 631 | 801 | -- | -- | 118 |
| Ash | 828 | -- | 10 | -- | -- | 119 | 128 | 131 | -- | 440 | -- |
| Sycamore | 2,108 | -- | -- | -- | -- | 135 | 262 | -- | -- | 1,188 | 523 |
| River birch | 504 | -- | -- | -- | -- | -- | -- | -- | -- | 387 | 117 |
| Black walnut | 854 | -- | -- | -- | -- | -- | 309 | 484 | -- | -- | 61 |
| Black cherry | 252 | -- | -- | -- | -- | -- | 190 | 28 | -- | 34 | -- |
| Elm | 1,425 | -- | -- | -- | -- | -- | 439 | 595 | -- | 77 | 314 |
| Other hardwoods | 391 | -- | -- | -- | -- | -- | -- | -- | -- | 41 | 350 |
| Total hardwoods | 156,429 | 1,506 | 10 | 260 | 4,876 | 16,455 | 88,781 | 36,075 | 2,219 | 3,863 | 2,384 |
| All species | 180,440 | 9,897 | 244 | 260 | 12,880 | 17,354 | 92,816 | 38,087 | 2,219 | 4,299 | 2,384 |

1/ Cuttings of less than 3 cords per acre, or the equivalent in board feet, are included.
2/ International 1/4-inch rule.

Table 48.--*Average annual allowable cut of sawtimber[1] for 1972-1981 from harvest cuttings and thinnings, on commercial forest land, by species and stand-volume class, Eastern Ozarks, Missouri*

(Thousand board feet)[2]

| Species | All classes | Stand-volume class (board feet per acre) | | | |
|---|---|---|---|---|---|
| | | 0-1,499 | 1,500-2,499 | 2,500-4,999 | 5,000-7,499 |
| Softwoods: | | | | | |
| Shortleaf pine | 23,585 | 6,895 | 5,000 | 9,641 | 2,049 |
| Eastern redcedar | 426 | 426 | -- | -- | -- |
| Total softwoods | 24,011 | 7,321 | 5,000 | 9,641 | 2,049 |
| Hardwoods: | | | | | |
| Select white oaks | 36,173 | 7,689 | 8,295 | 17,382 | 2,807 |
| Other white oaks | 12,724 | 4,948 | 3,692 | 4,084 | -- |
| Select red oaks | 7,294 | 1,682 | 1,045 | 4,567 | -- |
| Red oaks | 76,344 | 12,347 | 24,756 | 31,045 | 8,196 |
| Other red oaks | 3,545 | 859 | 566 | 2,120 | -- |
| Hickory A | 4,291 | 745 | 2,306 | 1,109 | 131 |
| Hickory B | 7,220 | 1,778 | 935 | 3,181 | 1,326 |
| Hard maple | 518 | 18 | 361 | 139 | -- |
| Soft maple | 97 | 97 | -- | -- | -- |
| Sweetgum | 174 | 8 | -- | 166 | -- |
| Tupelo and blackgum | 1,687 | 354 | 221 | 764 | 348 |
| Ash | 828 | 152 | 308 | 368 | -- |
| Sycamore | 2,108 | 842 | 469 | 797 | -- |
| River birch | 504 | 387 | 117 | -- | -- |
| Black walnut | 854 | 213 | 245 | 396 | -- |
| Black cherry | 252 | 62 | -- | -- | 190 |
| Elm | 1,425 | 153 | 184 | 933 | 155 |
| Other hardwoods | 391 | 125 | 266 | -- | -- |
| Total hardwoods | 156,429 | 32,459 | 43,766 | 67,051 | 13,153 |
| All species | 180,440 | 39,780 | 48,766 | 76,692 | 15,202 |

1/ Cuttings of less than 3 cords per acre, or the equivalent in board feet, are included.

2/ International 1/4-inch rule.

Table 49.--*Average annual allowable cut by harvest cuttings of sawtimber[1] for 1972-1981 on commercial forest land, by species and stand-volume class, Eastern Ozarks, Missouri*

(Thousand board feet)[2]

| Species | All classes | Stand-volume class (board feet per acre) | | | |
|---|---|---|---|---|---|
| | | 0-1,499 | 1,500-2,499 | 2,500-4,999 | 5,000-7,499 |
| Softwoods: | | | | | |
| Shortleaf pine | 17,966 | 3,208 | 4,664 | 8,045 | 2,049 |
| Eastern redcedar | 371 | 371 | -- | -- | -- |
| Total softwoods | 18,337 | 3,579 | 4,664 | 8,045 | 2,049 |
| Hardwoods: | | | | | |
| Select white oaks | 33,391 | 6,122 | 7,580 | 16,882 | 2,807 |
| Other white oaks | 12,124 | 4,509 | 3,531 | 4,084 | -- |
| Select red oaks | 6,680 | 1,130 | 983 | 4,567 | -- |
| Red oaks | 64,370 | 6,083 | 19,305 | 30,786 | 8,196 |
| Other red oaks | 3,499 | 813 | 566 | 2,120 | -- |
| Hickory A | 3,769 | 488 | 2,306 | 844 | 131 |
| Hickory B | 6,670 | 1,288 | 875 | 3,181 | 1,326 |
| Hard maple | 500 | -- | 361 | 139 | -- |
| Sweetgum | 166 | -- | -- | 166 | -- |
| Tupelo and blackgum | 1,534 | 201 | 221 | 764 | 348 |
| Ash | 730 | 54 | 308 | 368 | -- |
| Sycamore | 1,609 | 343 | 469 | 797 | -- |
| River birch | 117 | -- | 117 | -- | -- |
| Black walnut | 745 | 104 | 245 | 396 | -- |
| Black cherry | 190 | -- | -- | -- | 190 |
| Elm | 1,315 | 43 | 184 | 933 | 155 |
| Other hardwoods | 307 | 41 | 266 | -- | -- |
| Total hardwoods | 137,716 | 21,219 | 37,317 | 66,027 | 13,153 |
| All species | 156,053 | 24,798 | 41,981 | 74,072 | 15,202 |

1/ Cuttings of less than 3 cords per acre, or the equivalent in board feet, are included.

2/ International 1/4-inch rule.

Table 50.--*Average annual allowable cut by thinnings of sawtimber[1] for 1972-1981 on commercial forest land, by species and stand-volume class, Eastern Ozarks, Missouri*

(Thousand board feet)[2]

| Species | All classes | Stand-volume class (board feet per acre) | | |
|---|---|---|---|---|
| | | 0-1,499 | 1,500-2,499 | 2,500-4,999 |
| Softwoods: | | | | |
| Shortleaf pine | 5,619 | 3,687 | 336 | 1,596 |
| Eastern redcedar | 55 | 55 | -- | -- |
| Total softwoods | 5,674 | 3,742 | 336 | 1,596 |
| Hardwoods: | | | | |
| Select white oaks | 2,782 | 1,567 | 715 | 500 |
| Other white oaks | 600 | 439 | 161 | -- |
| Select red oaks | 614 | 552 | 62 | -- |
| Red oaks | 11,974 | 6,264 | 5,451 | 259 |
| Other red oaks | 46 | 46 | -- | -- |
| Hickory A | 522 | 257 | -- | 265 |
| Hickory B | 550 | 490 | 60 | -- |
| Hard maple | 18 | 18 | -- | -- |
| Soft maple | 97 | 97 | -- | -- |
| Sweetgum | 8 | 8 | -- | -- |
| Tupelo and blackgum | 153 | 153 | -- | -- |
| Ash | 98 | 98 | -- | -- |
| Sycamore | 499 | 499 | -- | -- |
| River birch | 387 | 387 | -- | -- |
| Black walnut | 109 | 109 | -- | -- |
| Black cherry | 62 | 62 | -- | -- |
| Elm | 110 | 110 | -- | -- |
| Other hardwoods | 84 | 84 | -- | -- |
| Total hardwoods | 18,713 | 11,240 | 6,449 | 1,024 |
| All species | 24,387 | 14,982 | 6,785 | 2,620 |

1/ Cuttings of less than 3 cords per acre, or the equivalent in board feet, are included.

2/ International 1/4-inch rule.

Table 51.--*Area of allowable cut*[1/] *by harvest cuttings on commercial forest land for 1972-1981, by forest type and stand-age class, Eastern Ozarks, Missouri*

(Thousand acres)

| Forest type | All ages | Stand-age class (years) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1-9 | 10-19 | 20-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70-79 | 80-89 | 90-99 | 100-119 | 120-139 |
| Shortleaf pine | 17.1 | -- | -- | -- | -- | -- | 12.4 | 4.7 | -- | -- | -- | -- | -- |
| Eastern redcedar | 2.1 | -- | .6 | -- | -- | -- | -- | -- | 1.5 | -- | -- | -- | -- |
| Eastern redcedar-hardwood | 3.6 | 1.1 | -- | .8 | -- | 1.7 | -- | -- | -- | -- | -- | -- | -- |
| Shortleaf pine-oak | 35.3 | -- | -- | -- | -- | -- | 8.3 | 12.7 | 10.8 | -- | 3.5 | -- | -- |
| Post-blackjack oak | 141.9 | -- | -- | -- | -- | -- | -- | 22.4 | 34.6 | 30.7 | 7.6 | 35.1 | 11.5 |
| Black-scarlet oak | 303.2 | -- | -- | -- | -- | -- | -- | 68.2 | 135.5 | 38.2 | 30.6 | 30.7 | -- |
| White oak | 147.4 | -- | -- | -- | -- | -- | -- | -- | 43.7 | 34.4 | 38.5 | 15.4 | 15.4 |
| Oak-gum-cypress | 2.3 | -- | -- | -- | -- | 2.3 | -- | -- | -- | -- | -- | -- | -- |
| Elm-ash-cottonwood | 15.8 | -- | -- | -- | -- | -- | -- | 2.9 | 6.6 | 6.3 | -- | -- | -- |
| Maple-beech | 7.5 | -- | -- | -- | -- | -- | -- | -- | 7.5 | -- | -- | -- | -- |
| All forest types | 676.2 | 1.1 | .6 | .8 | -- | 4.0 | 20.7 | 110.9 | 240.2 | 109.6 | 80.2 | 81.2 | 26.9 |

1/ For a 10-year period.

Table 52.--*Area of allowable cut*[1/] *by thinnings on commercial forest land for 1972-1981, by forest type and stand-age class, Eastern Ozarks, Missouri*

(Thousand acres)

| Forest type | All ages | Stand-age class (years) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 0-9 | 10-19 | 20-29 | 30-39 | 40-49 | 50-59 | 60-69 |
| Shortleaf pine | 35.4 | -- | -- | 3.7 | 14.9 | 16.8 | -- | -- |
| Shortleaf pine-oak | 21.6 | -- | -- | -- | 10.8 | 10.8 | -- | -- |
| Black-scarlet oak | 413.9 | 3.8 | 30.0 | 15.4 | 132.8 | 137.3 | 94.6 | -- |
| White oak | 86.1 | 4.0 | 3.5 | 7.9 | 15.8 | 27.5 | 23.5 | 3.9 |
| Elm-ash-cottonwood | 26.2 | -- | -- | 10.3 | 6.6 | 9.3 | -- | -- |
| Maple-beech | 8.2 | -- | -- | 4.5 | 3.1 | -- | -- | .6 |
| All forest types | 591.4 | 7.8 | 33.5 | 41.8 | 184.0 | 201.7 | 118.1 | 4.5 |

1/ For a 10-year period.

## PRINCIPAL TREE SPECIES IN MISSOURI'S EASTERN OZARKS UNIT[3/]

### SOFTWOOD SPECIES

Shortleaf pine . . . . . *Pinus echinata*
Eastern redcedar . . . . . *Juniperus virginiana*

### HARD HARDWOOD SPECIES

Ashes:
- White ash . . . . . *Fraxinus americana*
- Green ash . . . . . *Fraxinus pennsylvanica*

Black walnut . . . . . *Juglans nigra*

Hard maples:
- Sugar maple . . . . . *Acer saccharum*

Hickory group A:
- Pecan . . . . . *Carya illinoensis*
- Shellbark hickory . . . . . *Carya laciniosa*
- Shagbark hickory . . . . . *Carya ovata*
- Mockernut hickory . . . . . *Carya tomentosa*

Hickory group B:
- Water hickory . . . . . *Carya aquatica*
- Bitternut hickory . . . . . *Carya cordiformis*
- Pignut hickory . . . . *Carya glabra* var. *glabra*
- Black hickory . . . . . *Carya texana*

River birch . . . . . *Betula nigra*

Select white oaks:
- White oak . . . . . *Quercus alba*
- Bur oak . . . . . *Quercus macrocarpa*
- Swamp chestnut oak . . . . . *Quercus michauxii*
- Chinkapin oak . . . . . *Quercus muehlenbergii*
- Swamp white oak . . . . . *Quercus bicolor*
- Overcup oak . . . . . *Quercus lyrata*

Other white oaks:
- Post oak . . . . . *Quercus stellata* var. *stellata*

Select red oaks:
- Cherrybark oak . *Quercus falcata* var. *pagodaefolia*
- Northern red oak . . . . . *Quercus rubra*
- Shumard oak . . *Quercus shumardii* var. *shumardii*

Red oaks:
- Scarlet oak . . . . . *Quercus coccinea*
- Southern red oak . . *Quercus falcata* var. *falcata*
- Black oak . . . . . *Quercus velutina*

Other red oaks:
- Shingle oak . . . . . *Quercus imbricaria*
- Blackjack oak . . . . . *Quercus marilandica*
- Pin oak . . . . . *Quercus palustris*
- Willow oak . . . . . *Quercus phellos*

Other hard hardwoods:
- Black locust . . . . . *Robinia pseudoacacia*
- Common persimmon . . . . . *Diospyros virginiana*
- Flowering dogwood . . . . . *Cornus florida*
- Honeylocust . . . . . *Gleditsia triacanthos*
- Red mulberry . . . . . *Morus rubra*

### SOFT HARDWOOD SPECIES

American basswood . . . . . *Tilia americana*
American sycamore . . . . . *Platanus occidentalis*
Black cherry . . . . . *Prunus serotina*
Butternut . . . . . *Juglans cinerea*

Cottonwoods:
- Eastern cottonwood . . . . . *Populus deltoides*

Elms:
- Winged elm . . . . . *Ulmus alata*
- American elm . . . . . *Ulmus americana*
- Slippery elm . . . . . *Ulmus rubra*
- Rock elm . . . . . *Ulmus thomasii*

Soft maples:
- Red maple . . . . . *Acer rubrum* var. *rubrum*
- Silver maple . . . . . *Acer saccharinum*

Sweetgum . . . . . *Liquidambar styraciflua*

Tupelo and blackgum:
- Blackgum . . . . . *Nyssa sylvatica* var. *biflora*

Other soft hardwoods:
- Black willow . . . . . *Salix nigra*
- Boxelder . . . . . *Acer negundo*
- Hackberry . . . . . *Celtis occidentalis*
- Sassafras . . . . . *Sassafras albidum*

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*3/ The common and scientific names are based on "Check List of Native and Naturalized Trees of the United States (Including Alaska)," by Elbert L. Little, Jr., U.S. Dep. Agric., Agric. Handb. 41, 472 p., 1953.*

# APPENDIX

## ACCURACY OF SURVEY

Forest Survey information is based on a sampling procedure designed to provide reliable statistics at the State and Survey Unit levels. Consequently, the reported figures are estimates only. However, a measure of reliability of these figures is given by sampling errors. These sampling errors may be interpreted as meaning that the chances are two out of three that if a 100-percent inventory had been taken, using the same methods, the results would have been within the limits indicated.

For example, the estimated area of commercial forest land in the Eastern Ozarks Unit in 1972, 4,084.0 thousand acres, has a sampling error of ±0.8 percent (±32.7 thousand acres). The commercial forest area from a 100-percent inventory, then, would be expected to fall between 4,051.3 and 4,116.7 thousand acres (4,084.0 ± 32.7), there being a one in three chance that this is not the case.

Following are sampling errors for total estimated volume, net growth, and removals for both growing stock and sawtimber, and for area of commercial forest land during the 1972 Eastern Ozarks survey:

| *Item* | *Eastern Ozarks Unit totals* | *Sampling error (Percent)* |
|---|---|---|
| Growing stock: | | |
| Volume | 28,045.6 M cords | 2.2 |
| Growth | 903.0 M cords | 3.1 |
| Removals | 517.7 M cords | 6.6 |
| Sawtimber: | | |
| Volume | 5,286.5 MM bd. ft. | 3.2 |
| Growth | 124.0 MM bd. ft. | 3.9 |
| Removals | 156.4 MM bd. ft. | 5.6 |
| Commercial forest land | 4,084.0 M acres | .8 |

As survey data are broken down into units smaller than State or Survey Unit totals, the sampling error increases. The smaller the breakdown, the larger the sampling error. For example, the sampling error for area of commercial forest land in a particular county is higher than that for total commercial forest area in the Survey Unit. An approximation of the increasing sampling error can be obtained from table 53, which shows the sampling errors associated with estimates smaller than totals in the Eastern Ozarks Unit.

## SURVEY PROCEDURE

The major steps in the survey of the Eastern Ozarks Unit were as follows:

1. A total of 29,119 1-acre points distributed systematically across aerial photos of the entire area were observed. These points were classified as either forest land (20,853) or nonforest land (8,266) in order to make a preliminary estimate of forest area. Next, 8,069 of the forest points were stereoclassified as to forest type, stand-size class, and density. Then 1,139 points classed as forest and 507 points classed as nonforest were examined on the ground to correct the preliminary area estimate for errors in classification and for actual changes in land use since the photos were taken. Some of the points examined were locations of permanent sample plots (each of which contained one variable-radius plot with basal area factor five) established during the 1959 survey. Of the 1,075 points determined to be on commercial forest land from ground examination, 444 were at previously unsampled locations and 10-point variable-radius plots (basal area factor 37.5) were established uniformly over the sample acre. The remaining 631 points were at formerly established permanent plot locations and were remeasured by superimposing 10-point variable-radius plots (basal area factor 37.5) over the existing plot in addition to remeasuring the basal area factor 5 plot. Tree measurements made on new and remeasured plots were the basis for estimates of timber volume, growth, mortality, number of trees, and other forest classifications.

2. Statistics on timber utilization in 1969 were obtained from mill surveys and from remeasurement of permanent sample plots. The Missouri Department of Conservation conducted a canvass of resident saw-

Table 53.--*Sampling errors*[1/] *for estimates smaller than unit totals of volume, net growth, and removals, and of area of commercial forest land, Eastern Ozarks, Missouri, 1972*

| Sampling error (percent) | Commercial forest | Growing stock | | | Sawtimber | | |
|---|---|---|---|---|---|---|---|
| | | Inventory | Growth | Removals | Inventory | Growth | Removals |
| | Thousand acres | Thousand cords | | | Million board feet | | |
| 1 | 3,329.7 | | | | | | |
| 2 | 832.4 | 39,377.3 | | | | | |
| 3 | 370.0 | 17,501.3 | 1,081.1 | | 7,096.8 | 243.2 | |
| 4 | 208.1 | 9,844.5 | 608.1 | | 3,991.9 | 136.8 | |
| 5 | 133.2 | 6,301.7 | 389.2 | 898.7 | 2,554.8 | 87.5 | 194.1 |
| 10 | 33.3 | 1,575.1 | 97.3 | 225.3 | 638.7 | 21.9 | 48.5 |
| 15 | 14.8 | 700.0 | 43.2 | 100.0 | 283.9 | 9.7 | 21.6 |
| 20 | 8.3 | 393.8 | 24.3 | 55.7 | 159.7 | 5.5 | 12.1 |
| 25 | 5.3 | 252.0 | 15.6 | 35.4 | 102.2 | 3.5 | 7.8 |
| 50 | 1.3 | 63.0 | 3.9 | 8.9 | 25.5 | .9 | 1.9 |
| 100 | .3 | 15.7 | 1.0 | 2.5 | 6.4 | .2 | .5 |

1/ At the 68-percent probability level.

mills, veneer mills, and other primary wood-using plants. The North Central Forest Experiment Station canvassed resident pulpmills, and the underground mining industry in Missouri, as well as out-of-State sawmills, pulpmills, and veneer mills to determine their use of timber from Missouri. Fuelwood and fencepost output was based on U.S. Census of Agriculture and Housing figures, a canvass of public and industrial timber owners, and a canvass of resident wood-treating plants. Estimates of primary mill residue used for fuelwood were obtained from the canvass of Missouri primary wood-using plants. Timber cut for products by owner class was determined by a canvass of all public and industrial timber owners. The portion of timber cut unaccounted for by the latter owners was grouped under "farmer and other owners."

3. To develop wood utilization factors used in converting timber products output to timber removals for saw logs, veneer logs, cooperage logs, pulpwood, and charcoal wood, 486 felled trees throughout the State were measured. Factors for all other products were obtained during the 1959-1960 Missouri utilization study.

4. Field data were sent to St. Paul where they were edited, punched on cards, and stored on magnetic tape for later machine sorting, computing, and tabulation.

## ALLOWABLE CUT

Allowable cut is the estimated volume of timber on commercial forest land that could be cut annually for the next 10 years, while improving tree stocking and bringing about a more even distribution of age classes. In Missouri, annual allowable cut is shown separately as that from harvest cutting and from thinnings, and was determined by computer using an area control system for determining the number of acres to be cut annually.

The harvest cut of sawtimber was calculated from stands of forest types normally managed for sawtimber whose site index and age indicated they were ready for harvest, or would be within the next 10 years. Table 54 shows the site index used in these calculations for each forest type to determine whether the objective of management would be to grow sawtimber or pulpwood. Included also is the rotation age for each.

Stands that did not qualify for harvest during that period were checked to see if they were overstocked by basal area standards, or would be within the next 10 years. Stands determined to be overstocked were "thinned" by the computer back to their recommended basal area stocking level, and the volume of sawtimber trees "thinned" was added to the volume of allowable cut by thinnings of sawtimber. The volume of poletimber trees "thinned" was added to the growing-stock allowable cut by thinnings. In scheduling thinnings, the computer program first "removes" rough and rotten trees, then short-log trees, and finally, growing-stock trees.

Table 54.--*Forest type, site index, and rotation age, by management objective, used in calculation of annual allowable cut, Missouri, 1972*

| Forest type | Site index | Rotation age | Management objective |
|---|---|---|---|
| | | Years | |
| Shortleaf pine | 50 or higher | 60 | Sawtimber |
| | Less than 50 | 40 | Pulpwood |
| Shortleaf pine-oak | 60 or higher | 80 | Sawtimber |
| | Less than 60 | 50 | Pulpwood |
| Eastern redcedar | 35 or higher | 55 | Sawtimber |
| | Less than 35 | 70 | Sawtimber |
| Eastern redcedar-hardwood | 45 or higher | 50 | Sawtimber |
| | Less than 45 | 60 | Sawtimber |
| Black-scarlet oak | 60 or higher | 80 | Sawtimber |
| | Less than 60 | 50 | Pulpwood |
| White oak | 60 or higher | 80 | Sawtimber |
| | Less than 60 | 50 | Pulpwood |
| Post-blackjack oak | All sites | 50 | Pulpwood |
| Oak-gum-cypress | All sites | 60 | Sawtimber |
| Cottonwood | All sites | 30 | Sawtimber |
| Elm-ash-cottonwood | All sites | 50 | Sawtimber |
| Maple-beech | All sites | 90 | Sawtimber |

The harvest cut of growing stock included that of sawtimber in addition to the volume from stands of forest types normally managed for pulpwood that were or would be rotation age within the next 10 years.

Allowable cut is based on the assumptions that all timber will be available and accessible when needed, and that a ready market will exist for every species, size, and grade of material harvested. Further, it assumes that the proper sequence of cutting is known and will be followed, and that logging practices employed will result in an improved forest. Because there is no way of guaranteeing that these assumptions will be carried out during the next 10 years, the allowable cut estimates should be compared with timber removals figures only in a general way.

## LOG GRADE

In the Eastern Ozarks Unit, the butt log of each sawtimber tree (2,201 trees) on every permanent sample plot was log-graded. Additionally, all of the logs in a smaller sample of trees harvested throughout the State (265 trees) were log-graded. The volume yield by log grade for each tree in the latter sample was used to distribute the volume of trees in the former sample into log grade classes. The resulting volumes by log grade classes were expanded to provide an estimate for the entire Unit.

Logs are graded on the basis of external characteristics as indicators of quality. Hardwood species were graded according to "Hardwood Log Grades for Standard Lumber and How to Use Them," published by the Forest Products Laboratory under the designation D1737A, 1961, and USDA Forest Service standards for hardwood tie and timber logs. The best 12-foot section of the lowest 16-foot hardwood log, or the best 12-foot upper section if the butt log did not meet minimum log-grade standards, was graded.

Shortleaf pine was graded according to "Interim Southern Pine Log Grades," USDA Forest Service, 1953. All other softwoods were graded according to "Specifications for Log Grades of Hardwoods and Softwoods," Northern Hemlock and Hardwood Association, 1947. The lowest 16-foot log in softwood trees or a shorter log to a minimum of 12 feet if a 16-foot butt log was not present, was graded.



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Essex, Burton L., and John S. Spencer, Jr.
1974. Timber resource of Missouri's Eastern Ozarks, 1972.
North Cent. For. Exp. Stn., St. Paul, Minn. 62 p.
(USDA For. Serv. Resour. Bull. NC-19)

The third timber inventory of Missouri's Eastern Ozarks Forest Survey Unit shows that there was a substantial gain in the volume of growing stock and a smaller but sizable gain in the volume of sawtimber between 1959 and 1972; however, the area of commercial forest land declined slightly. This report gives statistical highlights and tables presenting detailed information concerning forest area as well as timber volume, growth, mortality, ownership, and use.

OXFORD: 524.1:905.2(778). KEY WORDS: timber volume, growth, utilization, forest areas.

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Put trash in the proper place.